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ABSTRACT

The sixth in a series, this report reviews microcomputer courseware authorized by the Alberta Department of Education from April 1986 through December 1986. (Although earlier publications in this series were cumulative, this edition and the fifth edition contain only new or revised reports.) This edition provides detailed evaluations of 39 authorized programs for teaching business education and sciences commercials, computer science/computer literacy, Francais and French language arts, language arts, library skills, mathematics, and problem solving. Several of the programs are in French, and both English and French subject indexes are provided as well as an index in which the titles appear in the original language; evaluations are written in the language of the program. Each evaluation includes the program title; author; producer(s); address; telephone number; grade level; contents; topics; components; hardware requirements (30 of the programs are for Apple microcomputers and seven for IBM PC/XT/AT); other formats available (not evaluated); year produced; cost; subject area; and display language. Also included are objectives; descriptions and evaluations of content, instructional format, the technical system, technical characteristics, and implementational support; a summation of the evaluation; the status of the program (basic, recommended, or supplementary); and purchase information. (MES)

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ED282525

Computer Courseware Evaluations

April 1986 to December 1986
Volume VI

Curriculum

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Alberta
EDUCATION

IR012688

COMPUTER COURSEWARE EVALUATIONS

April 1986 to December 1986

Clearinghouse
Curriculum Branch
Program Development Division
Alberta Education

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Alberta educators and educational institutions are free to duplicate individual evaluation reports in full for educational purposes.

Inquiries about this report should be directed to the Manager, Clearinghouse, Alberta Education, 11160 - Jasper Avenue, Edmonton, Alberta, Canada, T5K 0L2. Telephone: (403) 427-2984.

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Alberta Education acknowledges with appreciation the valuable contributions of the many teachers throughout Alberta who spent countless hours analyzing hundreds of computer software programs over the past nine months.

Also, many thanks to: project managers Wayne Blair and Dan Malone for developing the manual; Carol-Anne Riome for compiling and editing; Keith Wagner, Jim Brackenbury, Garry Popowich, Ardis Kamra, Mary Lyseng, Barbara Esdale, Sharon Prather and Jacqueline St. Jean for curriculum authorization coordination; and, finally to Mary Knox, Patricia Shields, Therese Pavone and Marilyn Dyck for their work on the synthesis reports.

INTRODUCTION

This publication is a service document containing evaluative information about computer courseware and is designed to guide and assist Alberta educators in the purchase of computer courseware. The materials in the guide do not constitute an exhaustive listing but, rather, they are the best computer courseware products the Clearinghouse could locate over the past nine months that support the Alberta curriculum.

Alberta Education uses a three-stage process for the evaluation of computer courseware products. Materials are first screened and, if found appropriate, the courseware is then evaluated independently by up to three teachers who have been trained and tested in evaluation techniques and in the use of an evaluation instrument developed by Alberta Education. The second-stage reports are synthesized and successful materials advance to the final stage. In that third stage, the courseware is assessed by Alberta Education's Program Development Division which makes a decision on its status. Three designations are used: basic, recommended and supplementary. These are defined as follows:

Basic Learning Resources are those learning resources approved by Alberta Education as the most appropriate for meeting the majority of goals and objectives of courses, or substantial components of courses outlined in the provincial programs of studies.

AND

Those productivity software programs (e.g., word processors, spreadsheets, databases, integrated programs) approved by Alberta Education that can be used to achieve important objectives across two or more grade levels, subject areas, or programs.

Recommended Learning Resources are those learning resources approved by Alberta Education because they complement basic learning resources by making an important contribution to the attainment of one or more of the major goals of courses outlined in the provincial programs of studies.

Supplementary Learning Resources are those learning resources approved by Alberta Education because they support courses outlined in the provincial programs of studies by enriching or reinforcing the learning experience.

USING THE GUIDE

This publication is a listing of computer courseware evaluation reports. Each evaluation report is entered alphabetically, by title. A subject and title index are provided for convenient access to each report.

As indicated on the previous page, Alberta Education authorizes learning resources at **basic, recommended** or **supplementary** levels. It is important for readers, particularly those outside of Alberta, to note that a major factor in the differentiation between these three levels is the amount of the Alberta curriculum that a product covers: one product may have a 'lower' status than another, but this may be due entirely to the relatively limited scope of the Alberta curriculum it supports.

Readers should also note that the designations used by Alberta Education are not equivalent to numerical scales or the summary phrases commonly in use by other evaluation agencies. Developers of this guide have deliberately avoided summarizing products with a single phrase or a numerical total as readers may place undue emphasis on such entries which, by their nature, are incomplete and potentially misleading. The courseware products described in this publication have varying strengths and weaknesses; they have different objectives and different pedagogical strategies designed to achieve these objectives. To gain full appreciation of the quality of the contents, the full report must be read.

This publication is the sixth issued by the Clearinghouse; earlier Clearinghouse publications were cumulative. However, the last Clearinghouse publication on computer courseware evaluations contained only the reports from June 1985 to March 1986. This edition contains only new, or revised, reports; the March 1986 issue should therefore be retained as a useful guide.

ACQUIRING THE PRODUCTS

Sources for the products listed in this document are given at the end of each evaluation report. Although these products are available through the Learning Resources Distributing Centre (LRDC), courseware with a **supplementary** status may be more readily available through local distributors in your area. The following information is provided to clarify Alberta Education's present role in such acquisitions.

Products identified as **basic**, or **recommended** learning resources are acquired and provided at discount prices through the Learning Resources Distributing Centre, formerly the School Book Branch. This is a branch of Alberta Education and discount prices are available to Alberta schools only. The Learning Resources Distributing Centre issues an annual catalog of products, and schools should order materials using the required forms.

The Learning Resources Distributing Centre also handles warranties and returns for microcomputer products. Please note that the principals/purchasing officers are required to certify that the microcomputer products being purchased are for use by the school, and the products' copyrights will be protected.

The majority of authorized microcomputer products fall within the category of **supplementary** learning resources. Schools can purchase such products through the Learning Resources Distributing Centre's special order process (please refer to the LRDC Buyer's Guide for special ordering procedures).

TO ORDER THE COMPUTER COURSEWARE EVALUATIONS PUBLICATION

Limited copies of this report are provided without charge to educational institutions within Alberta. Schools wishing additional reports, or educators from outside of the province wishing to acquire the report, may purchase copies from the Learning Resources Distributing Centre.

Learning Resources Distributing Centre
Alberta Education
10410 - 121 Street
EDMONTON, Alberta
T5N 1L2
Phone: (403) 427-2767

PLEASE NOTE: ALL ORDERS MUST BE ACCOMPANIED BY CHEQUE OR MONEY ORDER FOR $3.00 IN CANADIAN FUNDS MADE PAYABLE TO THE LEARNING RESOURCES DISTRIBUTING CENTRE.

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M-ss-ng L-nks: Classics Old & New	6	Supplementary	
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Hinky Pinky Game (The)	4-6	Supplementary
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L'Écrivain public	5+	Recommandé	
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JEUX DE MOTS			
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L'Écrivain public	5+	Recommandé	
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How to Identify the Main Idea	Language Arts	5 - 9	Supplementary	
L'Écrivain public	Sciences commerciales, Français	5+	Recommandé	
Logic Builders	Problem Solving	2 - 6	Supplementary	
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Math Activities Courseware 2	Mathematics	2	Recommended	
Microsoft Word	Business Education	10 - 12	Basic	
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M-ss-ng L-nks: Microencyclopedia	Language Arts	4 - 6	Supplementary	
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WordPerfect	Business Education	10 - 12	Basic	
Wordstar 2000 Plus	Business Education	10 - 12	Basic	

EVALUATION REPORTS

ASSOCIATIONS 2

DESCRIPTION

Titre: Associations 2
Auteur(s): Emmanuel Chénard et al
Éditeur: Éditions FM
Source: 1113 rue Desnoyers, Laval, Québec H7C 1Y6
Matière: Français
Sujets: Associations de mots, expressions sémantiques

Version: 1983
Langue d'affichage: Français
Coût: 49,95 $ (1985)
Tél.: (514) 324-0712
Utilisateurs: 8 à 15 ans

Composantes: 1 disquette, guide d'utilisation (37 p.), contenu des fichiers (30 p.)
Matériel requis: Apple II+/IIe/IIc, 48K, 1 unité de disque, moniteur vidéo, imprimante facultative
Disponibilité sur d'autres ordinateurs (pas d'évaluation): Commodore 64

OBJECTIFS

Cet ensemble est conçu pour aider l'élève à mieux comprendre le sens des mots ou des variations de sens employés dans des expressions sémantiques. L'association de mots solidifie et affermit la langue.

DESCRIPTION DU CONTENU PÉDAGOGIQUE

Cet ensemble est conçu pour améliorer l'emploi et la compréhension des mots dans des expressions sémantiques. Le contenu est divisé en trois catégories.

Le premier fichier contient des mots ayant trait à certaines parties du corps humain et des animaux. Le deuxième fichier se rapporte à la nature, ainsi qu'à certaines activités propres à l'homme. Le fichier trois contient des verbes choisis parmi ceux qui sont les plus employés dans le langage enfantin. Chaque fichier contient trente-cinq phrases. L'utilisateur a le choix de commencer avec la démonstration ou de choisir immédiatement le nombre de questions (jusqu'à 35) qu'il/elle désire exploiter. Trois expressions sont présentées à la fois. L'utilisateur doit choisir le mot de la liste qui peut compléter les trois expressions. Après que la bonne réponse est entrée, il a le choix de voir les expressions utilisées en contexte, afin de clarifier la compréhension.

Le programme contient une option qui permet à l'enseignant/e d'y mettre de ses propres mots et phrases ou de remplacer un fichier au complet, en se servant des mots des trois fichiers supplémentaires qui sont inclus à la fin du livret du contenu des fichiers.

ÉVALUATION DU CONTENU PÉDAGOGIQUE

L'étendue et l'intensité du contenu sont appropriées car l'enseignant/e peut ajouter aux fichiers ou les changer si nécessaire. Même si l'utilisateur peut choisir le nombre de questions à faire, la documentation suggère que de douze à quinze questions par séance seraient probablement suffisantes. Il y a seulement un exemple, mais il est clairement présenté et facile à suivre. Il n'y a pas de développement séquentiel, de facile à difficile, dans le programme. Le renforcement de présenter les mots en contexte est bien utilisé. L'inclusion de l'article avec les noms dans la colonne des réponses aurait été très utile pour l'utilisateur.

Le contenu est exact, sauf pour le dernier mot du no. 12, fichier 3, "fit" devrait être "fasse". Cette erreur peut être corrigée facilement avec l'option 2. Il est à noter qu'il y a quelques références religieuses dans le contenu.

DESCRIPTION DES TYPES D'INTERVENTION PÉDAGOGIQUE

L'interaction de l'élève avec le programme comprend les étapes suivantes: entrer son nom, faire des sélections de menu, choisir les renforcements sonores (O/N), choisir le nombre de questions, répondre aux questions en choisissant une lettre de A à J, corriger les erreurs et voir les mots en contexte. La touche ESC permet à l'élève de quitter le programme, lui donne ses résultats et le retourne au menu principal.

Les questions sont présentées au hasard des banques de trente-cinq données par fichier. Le programme offre à l'enseignant/e la possibilité de créer ses fichiers personnels, contenant un maximum de 35 questions. Trois expressions sont présentées et l'élève doit choisir le bon mot à partir d'une liste de dix mots. Le nombre de réponses égale le nombre de questions qui reste à faire. Alors, quand moins de dix questions ont été demandées, ou qu'il en reste moins de dix à faire, la liste des mots possibles diminue jusqu'à ce qu'il ne reste qu'un mot pour la dernière question.

Quand la réponse juste est choisie, le mot se place à côté des trois expressions, une pomme clignotante apparaît et un petit air musical joue (si le son a été demandé). Quand une réponse erronée est donnée, le mot sort de la liste, approche la première expression, ensuite retourne à la liste et un bruit se produit. L'élève se fait demander d'essayer encore une fois. L'utilisateur peut essayer de trouver la bonne réponse autant de fois qu'il/elle lui est nécessaire. Cependant, chaque essai erroné constitue une erreur. Une bonne réponse compte seulement si elle est réussie au premier essai. Les points, réussites et erreurs, sont comptés au haut de l'écran durant chaque exercice. Quand l'élève a répondu à toutes ses questions, ou qu'il/elle termine en appuyant sur ESC, il voit le nombre de réussites, d'erreurs, un pourcentage et une phrase d'encouragement. Il n'y a pas d'examen antérieur ni ultérieur.

ÉVALUATION DES TYPES D'INTERVENTION PÉDAGOGIQUE

L'interaction de l'élève avec le programme est appropriée à la clientèle cible. Le programme est facile à utiliser et il contient des indices convenables. Le temps nécessaire pour finir un exercice est variable, vu que l'utilisateur indique le nombre de questions qu'il/elle veut faire, ou qu'il/elle arrête à mi-chemin. C'est à noter que, lorsque les élèves sont incertains des associations, ils/elles demandent à voir les contextes, mais quand ils/elles ont la bonne réponse, les élèves ont tendance à sauter cette partie. L'élève peut corriger ses erreurs avant de quitter le programme. La sélection des questions au hasard, des fichiers existants ou des fichiers créés par l'enseignant/e, est satisfaisante. Une faiblesse du programme est le fait que le nombre de choix de réponses possibles diminue quand il y reste moins de dix questions à faire. Ceci affaiblit considérablement la technique de questionnement. Il serait préférable de toujours garder le nombre de choix à dix. L'utilisateur peut s'essayer autant de fois qu'il/elle le désire mais chaque essai erroné compte pour une erreur, ce qui peut l'amener à abandonner. L'option de voir le mot en contexte est un atout pour le programme.

La rétroaction est immédiate. La rétroaction quantitative donnée par le programme est utile. Le programme pourrait donner plus d'assistance à l'utilisateur quand il/elle fait des erreurs.

DESCRIPTION DES CARACTÉRISTIQUES TECHNIQUES

Le programme utilise des lettres minuscules et majuscules et tous les caractères français spéciaux, nécessaires. Des effets spéciaux, comme la mise en évidence inverse et le clignotement, sont employés. L'emploi du son est optionnel.

ÉVALUATION DES CARACTÉRISTIQUES TECHNIQUES

Les affichages à l'écran sont clairs et faciles à lire. La grandeur des lettres est appropriée à la clientèle cible. Tous les caractères français sont bien utilisés. La mise en évidence et le clignotement sont efficaces. La transition d'un affichage à l'autre se fait bien. Le texte est exact, sauf pour le cas mentionné ci-haut. Le son optionnel est une bonne idée si le programme est destiné à être utilisé dans une salle de classe.

DESCRIPTION DU MATÉRIEL D'APPUI

L'utilisateur de ce programme devrait pouvoir lire au moins au niveau de la 3e année francophone ou 6e année français langue seconde. Le programme contient une option qui permet à l'enseignant/e de modifier des fichiers existants, ou de les remplacer au complet. Les résultats du dernier élève peuvent être vus à l'écran et imprimés. Les résultats ne sont pas sauvegardés sur la disquette.

La documentation consiste en deux livrets. Un livret donne les objectifs, le contenu, les caractéristiques, les interventions du maître et les activités de prolongement. L'autre livret énumère les 35 mots et les associations avec lesquelles ils sont présentés pour chacun des trois fichiers sur la disquette. De plus, il présente de l'information pour créer trois autres fichiers.

ÉVALUATION DU MATÉRIEL D'APPUI

L'option qui permet à l'enseignant/e de modifier ou de créer des nouveaux fichiers est facile d'opération. C'est dommage qu'un fichier ne puisse pas être sauvegardé. L'enseignant/e a accès à l'information de l'élève qui travaille couramment sur l'ordinateur. Le nombre total de questions essayées, de réussites, d'erreurs et le pourcentage sont donnés; toutefois les résultats seront perdus aussitôt qu'un autre élève utilise le programme s'il ne les a pas imprimés. Ceci est certainement une faiblesse du programme.

La documentation est complète et facile à utiliser. Ce programme peut être facilement utilisé dans une salle de classe mais une imprimante serait un grand avantage.

SOMMAIRE

Ce programme aide à développer des habiletés du langage, en améliorant le vocabulaire et la compréhension des expressions sémantiques. Le contenu est exact, sauf pour l'exception notée auparavant. L'option de l'enseignant/e qui permet des changements aux fichiers est un atout car ceci permet l'adaptation personnalisée aux utilisateurs.

L'absence d'un système de gestion qui pourrait sauvegarder et mettre à jour les résultats des élèves est une grande faiblesse. Le fait que le nombre de choix diminue respectivement avec le nombre de questions quand il en reste moins de dix à faire est une autre faiblesse. On devrait donner plus d'aide pour la rétroaction négative.

STATUT

L'ensemble "Associations 2" est reconnu comme ressource pédagogique de statut **"SUPPLÉMENTAIRE"** pour les élèves de 3e année francophone, 4e année immersion, 6e année français langue seconde programme de 9 ans, et 9e année français langue seconde programme de 6 ans.

ACHAT

Ce programme est disponible des Éditions FM, à l'adresse indiquée ci-haut, au coût de 49,95 $ (1986). Un prix au rabais peut être obtenu pour un achat excédant 9 copies. Des disquettes de rechange peuvent être achetées pour 10,00 $ chacune.

Les disquettes fautives sous garantie seront remplacées sans frais, dans les 90 jours suivant l'achat. Par la suite, elles seront remplacées pour 7,00 $.

À cause de l'interaction fréquente avec le programme, une disquette ne peut amorcer plus d'une machine à la fois.

CLOZE PLUS LEVEL C

DESCRIPTION

Title: Cloze Plus Level C
Authors: Instructional/Communications Technology & Milliken Publishing Company
Publisher: Milliken Publishing Company
Source: c/o BLM, P.O. Box 2249, 175 Holiday Drive, Cambridge, Ontario N3C 3N4
Subjects: Language Arts
Topics: Developing comprehension skills, improving vocabulary
Components: 4 disks, teacher's guide (27p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Available only in Apple format

Version: 1983
Display Language: English
Cost: $225.00 (1986)
Tel. #: (519) 658-4621
Users: Grades 2 - 5

OBJECTIVES

This program is designed to develop comprehension and vocabulary knowledge through structured context analysis activities.

PEDAGOGICAL CONTENT DESCRIPTION

This program consists of twenty lessons on four disks. It provides practice in context analysis skills based on eleven context clues which include synonyms, antonyms, word association, time/order, signal words and phrases, pronoun referents, similarities/differences, form/function, conclusion/summary, categorization/classification, and word definitions. Each lesson consists of a seven to twelve paragraph selection on a particular topic such as natural science, sports, inventions, myths, legends, etc. The lessons are described as being organized in ascending order of difficulty. Visual displays are provided in addition to textual information for some of the selections. The student reads the selection, paragraph by paragraph, and responds to the questions which are mainly multiple choice with a few in short answer format.

PEDAGOGICAL CONTENT EVALUATION

The level of this program is described as level three, but the guide states that this program should not be used with students whose independent reading level is below level four. The content is likely too challenging for most grade three students. The visual displays are good and add to the textual information; however, the maps show the United States rather than Canada. The sequencing of the stories is not always in ascending order of difficulty. Drill and practice is provided but there is little instruction. Most of the selections are interesting, but some are not metricated and are American in content e.g. Annie Oakley, Paul Revere and Yankee Doodle.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of name entry, selection of a class number, entry of a password, input of a letter from multiple choice lists, input words, use of RETURN key for page turning, use of SPACE BAR for accessing clues and ESC for exiting the program.

All questions are preprogrammed and follow a set order. A preponderance of multiple choice questions are used along with some short answer type questions. The type of question varies to focus on the different comprehension skills being practiced.

Feedback, using a combination of text and graphics, is immediate. A correct response results in a short congratulatory message and a piece of a graphic picture puzzle is shown. On the first incorrect response the student is told to try again and may ask for a clue before the second attempt. If the second attempt is incorrect, the correct response is given. At the end of the lesson, the completed picture puzzle is displayed even if every question was not answered correctly. Quantitative feedback is provided at the end of each lesson giving a summary of the number of correct responses, the student's percentage, the number of second tries and the number of clues required. In addition a second screen showing the student's performance in all eleven skill areas is provided.

No pre- or post-tests are provided.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate and effective. The input of responses to the multiple choice questions is weak as there is no opportunity to correct or change a response once it has been typed.

The questioning techniques are appropriate to the content. While the order of questions is preset, there is a good variety of questions. Unfortunately the word statement data bank is limited; moreover, some words which are correct are not accepted. The documentation indicates that assistance is provided to overcome spelling errors, but the student is merely told the answer is incorrect and to try again. The clues option is a good idea; however, the clues are not always helpful.

The feedback is generally appropriate and effective; however, more assistance is required in the negative feedback. Although no tests are provided with the program, the quantitative feedback provides the teacher with valuable diagnostic information.

It is unfortunate that there are no branching functions in this program. This program really provides drill and practice rather than instruction in context analysis.

TECHNICAL CHARACTERISTICS DESCRIPTION

The text is presented in enlarged upper and lower case letters. Instructions are printed in large boldface type. Inverse, flash and underlining are used to emphasize important words, etc. The program prompts indicate when input is required. Some graphic displays such as maps, diagrams, and graphic puzzles are included. No sound is used.

TECHNICAL CHARACTERISTICS EVALUATION

The technical quality of this program is very good. Screen clarity is excellent and the enlarged print is appropriate for the target audience. The techniques used for highlighting are effective. The graphics are interesting and relevant to the program. The locked keyboard and correction functions are appropriate and useful.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A student orientation to the program is suggested. No specific entry competencies are indicated, but it is suggested that students be placed at or slightly below their independent reading level. The management system allows the teacher to make individual assignments, add or delete students, review individual and class performance, review a lesson and receive printed records of student performance. The system has a capacity of one hundred students in five classes. Security is provided by using a password. The documentation provides rationale, descriptions of skill areas covered, a lesson overview, entry levels, program implementation, operating instructions, management system use, student orientation, and use of the drill feature. Two reproducible sheets are provided, one for a class schedule and the other for a skills record sheet. An "Easy Does It " card is provided as a student guide for using the program.

IMPLEMENTATIONAL SUPPORT EVALUATION

The management system, which is optional, is effective and relatively easy to use. Some teacher time is required to input the student names and make the necessary assignments. The capacity is sufficient in most situations. The system automatically keeps track of the the student's progress and a print out giving a summary of the eleven individual skill areas is very useful. The program will also alphabetize the student names. The ability to transfer a complete class record from one disk to another is a useful feature. Assigning specific lessons to a student ahead of time is an advantage for the teacher. The teacher documentation is clear, detailed and easy to follow. The program is easy to implement and requires minimal teacher computer competency. Little teacher supervision is required once the assignments are made.

SUMMATION

The technical design and the management system are very good. The use of structured cloze type exercises is good. This level appears to be too difficult for most of the grade three students and would likely be more appropriate for grades four and five. It is noted that the content is not metricated and some of the selections have American content. It is unfortunate that no branches are provided for remediation and that there is insufficient assistance given with the negative feedback. The high cost of this package is also a concern.

STATUS

"Cloze Plus Level C" has been authorized as a **SUPPLEMENTARY** learning resource for grades 2 - 5.

PURCHASE INFORMATION

Individual levels of "Cloze Plus" may be purchased for $225.00 (1986) from Britannica Learning Materials (BLM) at the address provided at the beginning of this report. Combination packages of three levels of "Cloze Plus" are available for $637.50 (1986). In addition, individual disks, teacher's guides, and binders with disk holders may be purchased. Quantity discounts are provided depending upon the number of units purchased.

Defective disks will be replaced free of charge within 90 days of the shipping date as long as the disk is returned accompanied by a statement describing the defect and by proof of purchase. After the warranty has expired, disks that become inoperable through normal wear and tear can be replaced on a one-time-only basis for $10.00 each plus shipping and handling.

CLOZE PLUS LEVEL D

DESCRIPTION

Title: Cloze Plus Level D
Authors: Instructional/Communications Technology & Milliken Publishing Company
Publisher: Milliken Publishing Company
Source: c/o BLM, P.O. Box 2249, 175 Holiday Drive, Cambridge, Ontario N3C 3N4
Subjects: Language Arts
Topics: Developing comprehension skills, improving vocabulary
Components: 4 disks, teacher's guide (27p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Available only in Apple format

Version: 1983
Display Language: English
Cost: $225.00 (1986)
Tel. #: (519) 658-4621
Users: Grades 3 - 6

OBJECTIVES

This program is designed to develop comprehension and vocabulary knowledge through structured context analysis activities.

PEDAGOGICAL CONTENT DESCRIPTION

This program consists of twenty lessons on four disks. It provides practice in context analysis skills based on eleven context clues which include synonyms, antonyms, word association, time/order, signal words and phrases, pronoun referents, similarities/differences, form/function, conclusion/summary, categorization/classification, and word definitions. Each lesson consists of a seven to twelve paragraph selection on a particular topic such as natural science, sports, inventions, myths, legends, etc. The lessons are described as being organized in ascending order of difficulty. Visual displays are provided in addition to textual information for some of the selections. The student reads the selection, paragraph by paragraph, and responds to the questions which are mainly multiple choice with a few in short answer format.

PEDAGOGICAL CONTENT EVALUATION

The range of content is more appropriate for the upper target audience; most students in grade four will find it difficult. The sequencing of the stories does not always appear to be in ascending order. The inclusion of visual displays adds interest and helps the student to understand the selection. The content is not metricated and some selections deal specifically with the United States. There is very little instruction in this program and it is really a drill and practice.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of name entry, selection of a class number, entry of a password, input of a letter from multiple choice lists, input words, use of RETURN key for page turning, use of SPACE BAR for accessing clues and ESC for exiting the program.

All questions are preprogrammed and follow a set order. A preponderance of multiple choice questions are used along with some short answer type questions. The type of question varies to focus on the different comprehension skills being practiced.

Feedback, using a combination of text and graphics, is immediate. A correct response results in a short congratulatory message and a piece of a graphic picture puzzle is shown. On the first incorrect response the student is told to try again and may ask for a clue before the second attempt. If the second attempt is incorrect, the correct response is given. At the end of the lesson, the completed picture puzzle is displayed even if every question was not answered correctly. Quantitative feedback is provided at the end of each lesson giving a summary of the number of correct responses, the student's percentage, the number of second tries and the number of clues required. In addition a second screen showing the student's performance in all eleven skill areas is provided.

No pre- or post-tests are provided.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate and effective. The input of responses to the multiple choice questions is weak as there is no opportunity to correct or change a response once it has been typed.

The questioning techniques are appropriate to the content. While the order of questions is preset, there is a good variety of questions. Unfortunately the word statement data bank is limited; moreover, some words which are correct are not accepted. The documentation indicates that assistance is provided to overcome spelling errors, but the student is merely told the answer is incorrect and to try again. The clues option is a good idea; however, the clues are not always helpful.

The feedback is generally appropriate and effective; however, more assistance is required in the negative feedback. Although no tests are provided with the program, the quantitative feedback provides the teacher with valuable diagnostic information.

It is unfortunate that there are no branching functions in this program. This program really provides drill and practice rather than instruction in context analysis.

TECHNICAL CHARACTERISTICS DESCRIPTION

The text is presented in enlarged upper and lower case letters. Instructions are printed in large boldface type. Inverse, flash and underlining are used to emphasize important words, etc. The program prompts indicate when input is required. Some graphic displays such as maps, diagrams, and graphic puzzles are included. No sound is used.

TECHNICAL CHARACTERISTICS EVALUATION

The technical quality of this program is very good. Screen clarity is excellent and the enlarged print is appropriate for the target audience. The techniques used for highlighting are effective. The graphics are interesting and relevant to the program. The locked keyboard and correction functions are appropriate and useful.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A student orientation to the program is suggested. No specific entry competencies are indicated, but it is suggested that students be placed at or slightly below their independent reading level. The management system allows the teacher to make individual assignments, add or delete students, review individual and class performance, review a lesson and receive printed records of student performance. The system has a capacity of one hundred students in five classes. Security is provided by using a password. The documentation provides rationale, descriptions of skill areas covered, a lesson overview, entry levels, program implementation, operating instructions, management system use, student orientation, and use of the drill feature. Two reproducible sheets are provided, one for a class schedule and the other for a skills record sheet. An "Easy Does It " card is provided as a student guide for using the program.

IMPLEMENTATIONAL SUPPORT EVALUATION

The management system, which is optional, is effective and relatively easy to use. Some teacher time is required to input the student names and make the necessary assignments. The capacity is sufficient in most situations. The system automatically keeps track of the the student's progress and a print out giving a summary of the eleven individual skill areas is very useful. The program will also alphabetize the student names. The ability to transfer a complete class record from one disk to another is a useful feature. Assigning specific lessons to a student ahead of time is an advantage for the teacher. The teacher documentation is clear, detailed and easy to follow. The program is easy to implement and requires minimal teacher computer competency. Little teacher supervision is required once the assignments are made.

SUMMATION

The technical design and the management system are very good. The use of structured cloze type exercises is good. The content is designed for an American audience and some selections refer specifically to the United States. The maps are not metricated. It is unfortunate that no branches are provided for remediation and that there is insufficient assistance given with the negative feedback. The cost and the lack of Canadian content are important considerations before purchasing this package for use in Alberta.

STATUS

"Cloze Plus Level D" has been authorized as a **SUPPLEMENTARY** learning resource for grades 3 - 6.

PURCHASE INFORMATION

Individual levels of "Cloze Plus" may be purchased for $225.00 (1986) from Britannica Learning Materials (BLM) at the address provided at the beginning of this report. Combination packages of three levels of "Cloze Plus" are available for $637.50 (1986). In addition, individual disks, teacher's guides, and binders with disk holders may be purchased. Quantity discounts are provided depending upon the number of units purchased.

Defective disks will be replaced free of charge within 90 days of the shipping date as long as the disk is returned accompanied by a statement describing the defect and by proof of purchase. After the warranty has expired, disks that become inoperable through normal wear and tear can be replaced on a one-time-only basis for $10.00 each plus shipping and handling.

CLOZE PLUS LEVEL E

DESCRIPTION

Title: Cloze Plus Level E
Authors: Instructional/Communications Technology & Milliken Publishing Company
Publisher: Milliken Publishing Company
Source: c/o BLM, P.O. Box 2249, 175 Holiday Drive, Cambridge, Ontario N3C 3W4
Subjects: Language Arts
Topics: Developing comprehension skills, improving vocabulary
Components: 4 disks, teacher's guide (27p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Available only in Apple format

Version: 1983
Display Language: English
Cost: $225.00 (1986)
Tel. #: (519) 658-4621
Users: Grades 4 - 6

OBJECTIVES

This program is designed to develop comprehension and vocabulary knowledge through structured context analysis activities.

PEDAGOGICAL CONTENT DESCRIPTION

This program consists of twenty lessons on four disks. It provides practice in context analysis skills based on eleven context clues which include synonyms, antonyms, word association, time/order, signal words and phrases, pronoun referents, similarities/differences, form/function, conclusion/summary, categorization/classification, and word definitions. Each lesson consists of a seven to twelve paragraph selection on a particular topic such as natural science, sports, inventions, myths, legends, etc. The lessons are described as being organized in ascending order of difficulty. Visual displays are provided in addition to textual information for some of the selections. The student reads the selection, paragraph by paragraph, and responds to the questions which are mainly multiple choice with a few in short answer format.

PEDAGOGICAL CONTENT EVALUATION

The range of content is appropriate for the intended users. The sequence and depth are adequate for most of the target audience; however, the depth is lacking for some of the students who are having difficulty and require additional assistance in specific areas. This program does provide some clues if the student makes use of this option, but this does not really provide sufficient instruction for a student having difficulties. Users need to be aware of the American content, but this does not necessarily preclude the use of this program. If the teacher provides some appropriate background information, the material may be effective.

The readability level is suitable for average and above average students in the target audience, but weaker students will likely have some difficulty with the complex sentence structure used.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of name entry, selection of a class number, entry of a password, input of a letter from multiple choice lists, input words, use of RETURN key for page turning, use of SPACE BAR for accessing clues and ESC for exiting the program.

All questions are preprogrammed and follow a set order. A preponderance of multiple choice questions are used along with some short answer type questions. The type of question varies to focus on the different comprehension skills being practiced.

Feedback, using a combination of text and graphics, is immediate. A correct response results in a short congratulatory message and a piece of a graphic picture puzzle is shown. On the first incorrect response the student is told to try again and may ask for a clue before the second attempt. If the second attempt is incorrect, the correct response is given. At the end of the lesson, the completed picture puzzle is displayed even if every question was not answered correctly. Quantitative feedback is provided at the end of each lesson giving a summary of the number of correct responses, the student's percentage, the number of second tries and the number of clues required. In addition a second screen showing the student's performance in all eleven skill areas is provided.

No pre- or post-tests are provided.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate and effective. The input of responses to the multiple choice questions is weak as there is no opportunity to correct or change a response once it has been typed.

The questioning techniques are appropriate to the content. While the order of questions is preset, there is a good variety of questions. Unfortunately the word statement data bank is limited; moreover, some words which are correct are not accepted. The documentation indicates that assistance is provided to overcome spelling errors, but the student is merely told the answer is incorrect and to try again. The clues option is a good idea; however, the clues are not always helpful.

The feedback is generally appropriate and effective; however, more assistance is required in the negative feedback. Although no tests are provided with the program, the quantitative feedback provides the teacher with valuable diagnostic information.

It is unfortunate that there are no branching functions in this program. This program really provides drill and practice rather than instruction in context analysis.

TECHNICAL CHARACTERISTICS DESCRIPTION

The text is presented in enlarged upper and lower case letters. Instructions are printed in large boldface type. Inverse, flash and underlining are used to emphasize important words, etc. The program prompts indicate when input is required. Some graphic displays such as maps, diagrams, and graphic puzzles are included. No sound is used.

TECHNICAL CHARACTERISTICS EVALUATION

The technical quality of this program is very good. Screen clarity is excellent and the enlarged print is appropriate for the target audience. The techniques used for highlighting are effective. The graphics are interesting and relevant to the program. The locked keyboard and correction functions are appropriate and useful.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A student orientation to the program is suggested. No specific entry competencies are indicated, but it is suggested that students be placed at or slightly below their independent reading level. The management system allows the teacher to make individual assignments, add or delete students, review individual and class performance, review a lesson and receive printed records of student performance. The system has a capacity of one hundred students in five classes. Security is provided by using a password. The documentation provides rationale, descriptions of skill areas covered, a lesson overview, entry levels, program implementation, operating instructions, management system use, student orientation, and use of the drill feature. Two reproducible sheets are provided, one for a class schedule and the other for a skills record sheet. An "Easy Does It " card is provided as a student guide for using the program.

IMPLEMENTATIONAL SUPPORT EVALUATION

The management system, which is optional, is effective and relatively easy to use. Some teacher time is required to input the student names and make the necessary assignments. The capacity is sufficient in most situations. The system automatically keeps track of the the student's progress and a print out giving a summary of the eleven individual skill areas is very useful. The program will also alphabetize the student names. The ability to transfer a complete class record from one disk to another is a useful feature. Assigning specific lessons to a student ahead of time is an advantage for the teacher. The teacher documentation is clear, detailed and easy to follow. The program is easy to implement and requires minimal teacher computer competency. Little teacher supervision is required once the assignments are made.

SUMMATION

The technical design and the management system are very good. The range, sequence and depth of content appear to be suitable; however, there is a concern about the American bias in some of the selections. The documentation purports this program to be instructional in nature; however, it is really a drill and practice program. It is unfortunate that there are no branches for remediation and that there is insufficient assistance given with the negative feedback.

STATUS

"Cloze Plus Level E" has been authorized as a **SUPPLEMENTARY** learning resource for grades 4 - 6.

PURCHASE INFORMATION

Individual levels of "Cloze Plus" may be purchased for $225.00 (1986) from Britannica Learning Materials (BLM) at the address provided at the beginning of this report. Combination packages of three levels of "Cloze Plus" are available for $637.50 (1986). In addition, individual disks, teacher's guides, and binders with disk holders may be purchased. Quantity discounts are provided depending upon the number of units purchased.

Defective disks will be replaced free of charge within 90 days of the shipping date as long as the disk is returned accompanied by a statement describing the defect and by proof of purchase. After the warranty has expired, disks that become inoperable through normal wear and tear can be replaced on a one-time-only basis for $10.00 each plus shipping and handling.

CLOZE PLUS LEVEL F

DESCRIPTION

Title: Cloze Plus Level F
Authors: Instructional/Communications Technology & Milliken Publishing Company
Publisher: Milliken Publishing Company
Source: c/o BLM, P.O. Box 2249, 175 Holiday Drive, Cambridge, Ontario N3C 3N4
Subjects: Language Arts
Topics: Developing comprehension skills, improving vocabulary
Components: 4 disks, teacher's guide (27p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Available only in Apple format

Version: 1983
Display Language: English
Cost: $225.00 (1986)
Tel. #: (519) 658-4621
Users: Grades 5 & 6

OBJECTIVES

This program is designed to develop comprehension and vocabulary knowledge through structured context analysis activities.

PEDAGOGICAL CONTENT DESCRIPTION

This program consists of twenty lessons on four disks. It provides practice in context analysis skills based on eleven context clues which include synonyms, antonyms, word association, time/order, signal words and phrases, pronoun referents, similarities/differences, form/function, conclusion/summary, categorization/classification, and word definitions. Each lesson consists of a seven to twelve paragraph selection on a particular topic such as natural science, sports, inventions, myths, legends, etc. The lessons are described as being organized in ascending order of difficulty. Visual displays are provided in addition to textual information for some of the selections. The student reads the selection, paragraph by paragraph, and responds to the questions which are mainly multiple choice with a few in short answer format.

PEDAGOGICAL CONTENT EVALUATION

The range of content is appropriate for the intended users. The sequence and depth are adequate; however, the depth is lacking for some of the students who are having difficulty and require additional assistance in specific skills. This program does provide some clues if the user makes use of this option, but does not really provide sufficient instruction for a student having difficulties. This is really a drill and practice program. Teachers need to be aware of the American content in a few of the selections; however, this does not necessarily preclude the use of the program.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of name entry, selection of a class number, entry of a password, input of a letter from multiple choice lists, input words, use of RETURN key for page turning, use of SPACE BAR for accessing clues and ESC for exiting the program.

All questions are preprogrammed and follow a set order. A preponderance of multiple choice questions are used along with some short answer type questions. The type of question varies to focus on the different comprehension skills being practiced.

Feedback, using a combination of text and graphics, is immediate. A correct response results in a short congratulatory message and a piece of a graphic picture puzzle is shown. On the first incorrect response the student is told to try again and may ask for a clue before the second attempt. If the second attempt is incorrect, the correct response is given. At the end of the lesson, the completed picture puzzle is displayed even if every question was not answered correctly. Quantitative feedback is provided at the end of each lesson giving a summary of the number of correct responses, the student's percentage, the number of second tries and the number of clues required. In addition a second screen showing the student's performance in all eleven skill areas is provided.

No pre- or post-tests are provided.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate and effective. The input of responses to the multiple choice questions is weak as there is no opportunity to correct or change a response once it has been typed.

The questioning techniques are appropriate to the content. While the order of questions is preset, there is a good variety of questions. Unfortunately the word statement data bank is limited; moreover, some words which are correct are not accepted. The documentation indicates that assistance is provided to overcome spelling errors, but the student is merely told the answer is incorrect and to try again. The clues option is a good idea; however, the clues are not always helpful.

The feedback is generally appropriate and effective; however, more assistance is required in the negative feedback. Although no tests are provided with the program, the quantitative feedback provides the teacher with valuable diagnostic information.

It is unfortunate that there are no branching functions in this program. This program really provides drill and practice rather than instruction in context analysis.

TECHNICAL CHARACTERISTICS DESCRIPTION

The text is presented in enlarged upper and lower case letters. Instructions are printed in large boldface type. Inverse, flash and underlining are used to emphasize important words, etc. The program prompts indicate when input is required. Some graphic displays such as maps, diagrams, and graphic puzzles are included. No sound is used.

TECHNICAL CHARACTERISTICS EVALUATION

The technical quality of this program is very good. Screen clarity is excellent and the enlarged print is appropriate for the target audience. The techniques used for highlighting are effective. The graphics are interesting and relevant to the program. The locked keyboard and correction functions are appropriate and useful.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A student orientation to the program is suggested. No specific entry competencies are indicated, but it is suggested that students be placed at or slightly below their independent reading level. The management system allows the teacher to make individual assignments, add or delete students, review individual and class performance, review a lesson and receive printed records of student performance. The system has a capacity of one hundred students in five classes. Security is provided by using a password. The documentation provides rationale, descriptions of skill areas covered, a lesson overview, entry levels, program implementation, operating instructions, management system use, student orientation, and use of the drill feature. Two reproducible sheets are provided, one for a class schedule and the other for a skills record sheet. An "Easy Does It " card is provided as a student guide for using the program.

IMPLEMENTATIONAL SUPPORT EVALUATION

The management system, which is optional, is effective and relatively easy to use. Some teacher time is required to input the student names and make the necessary assignments. The capacity is sufficient in most situations. The system automatically keeps track of the the student's progress and a print out giving a summary of the eleven individual skill areas is very useful. The program will also alphabetize the student names. The ability to transfer a complete class record from one disk to another is a useful feature. Assigning specific lessons to a student ahead of time is an advantage for the teacher. The teacher documentation is clear, detailed and easy to follow. The program is easy to implement and requires minimal teacher computer competency. Little teacher supervision is required once the assignments are made.

SUMMATION

The technical design and the management system are very good. From a pedagogical point of view, the range, sequence and depth of content are adequate, but the American bias in a few of the selections must be noted. The documentation purports this program to be instructional in nature; however, it is really drill and practice. It is unfortunate that there are no branches provided for remediation and that there is insufficient assistance given with the negative feedback. The high cost of this package is a concern.

STATUS

"Cloze Plus Level F" has been authorized as a **SUPPLEMENTARY** learning resource for grades 5 and 6.

PURCHASE INFORMATION

Individual levels of "Cloze Plus" may be purchased for $225.00 (1986) from Britannica Learning Materials (BLM) at the address provided at the beginning of this report. Combination packages of three levels of "Cloze Plus" are available for $637.50 (1986). In addition, individual disks, teacher's guides, and binders with disk holders may be purchased. Quantity discounts are provided depending upon the number of units purchased.

Defective disks will be replaced free of charge within 90 days of the shipping date as long as the disk is returned accompanied by a statement describing the defect and by proof of purchase. After the warranty has expired, disks that become inoperable through normal wear and tear can be replaced on a one-time-only basis for $10.00 each plus shipping and handling.

COMPUTER SCIENCE I

DESCRIPTION

Title: Computer Science I
Author: Benjamin McGill
Publisher: Microcomputer Workshops
Source: c/o CBS Interactive Learning, One Fawcett Place, Greenwich, CT 06836
Subjects: Computer Literacy/Computer Science
Topics: Shuffling techniques, hashing method
Components: 1 disk with backup, teacher's guide (14p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): IBM PC/PCjr, Tandy 1000

Version: 1984
Display Language: English
Cost: $34.95 US (1986)
Tel. #: (203) 622-2771
Users: Grades 10 - 12

OBJECTIVES

The stated objective of this program is to teach three different shuffling techniques and one hashing method.

PEDAGOGICAL CONTENT DESCRIPTION

From a menu, the student can choose a demonstration of one of three shuffling methods (a technique that takes an ordered list of data and places it in random order without repetition of items) or a hashing method (a process which allows the user to store values of data in condensed form and key in on the location or record where the particular item of data is stored).

PEDAGOGICAL CONTENT EVALUATION

This program relies heavily on classroom instruction as a background for understanding the processes being demonstrated. While the computer is an appropriate medium for demonstrating the techniques of shuffling and hashing, the lack of explanations, definitions and disk instructions makes the package best suited for use as a teacher demonstration tool. While the various steps in the sorting process are outlined in the print support materials, the technique would be difficult for a student to follow from the graphical demonstration alone.

INSTRUCTIONAL FORMAL DESCRIPTION

Student interaction consists of menu selection, speed selection, using any key to advance frames, and occasionally answering Y/N in response to whether he or she wishes to continue. The programs are designed for demonstration, hence there is no questioning, feedback or evaluation.

INSTRUCTIONAL FORMAT EVALUATION

This program presents an effective graphical demonstration of sorting and hashing techniques and should provide students with an understanding of simple number crunching manipulative operations. Program controls are consistent; however, the disk lacks the necessary explanations, definitions and instructions to enable use as a stand alone instructional unit. The lack of questions, feedback and evaluation further inhibit individual student use. Support documentation must be read carefully in order to maximize the effectiveness of the disk.

TECHNICAL CHARACTERISTICS DESCRIPTION

This program uses large, block numbers for the demonstration of the sorting routines. Text is presented in combination upper/lower case with windowing and overwriting used to change the value of numbers. Inverse highlighting is used for emphasis. Neither color nor sound are used.

TECHNICAL CHARACTERISTICS EVALUATION

The disk is user friendly and bomb proof. Screens are well formatted, and the use of large size text makes the material easy to read on either monochrome or color monitors. The option for a student to exit at any time via the escape key is good.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The fourteen page guide includes program objectives, program descriptions, and a printout of each program's commands together with an explanation of line statement functions.

IMPLEMENTATIONAL SUPPORT EVALUATION

Students would need to have copies of the guide before them in order to understand the demonstration process they are observing. Also, all operating instructions are given in the appendix of the guide as opposed to being on the disk itself. While the guide does include line by line explanations of the BASIC computer program which operates each demonstration, it does not include any questions to test student understanding of the process.

SUMMATION

This program makes effective use of the computer medium to present a graphical depiction of sorting and hashing processes and, as such, is useful as a teacher demonstration tool. Its classroom potential could be vastly improved if the demonstration was expanded into an interactive teaching program.

STATUS

"Computer Science I" has been authorized as a **SUPPLEMENTARY** learning resource for Computer Processing 10-20-30, Modules 1 and 2; and Computer Literacy 10, Topic 3.

PURCHASE INFORMATION

This product may be purchased for $34.95 US (1986) at the address provided at the beginning of this report. Lab packs, consisting of the teacher's guide, one disk with backup plus nine additional disks, are available for $104.85 US (1986). Bulk purchase discounts are provided by CBS Interactive Learning with the discount dependent upon the number of units bought. This product may also be available locally, check with your software dealers.

Defective disks will be replaced at no charge within 90 days of purchase. Within one year of the invoice date, defective disks will be replaced (on a one-time-only basis) for a fee of $5.00. Disks damaged by users can be replaced at a cost of $15.00 per disk.

As the disk is accessed with each return to the main menu, a disk may be used with only one computer at a time.

CUT AND PASTE

DESCRIPTION

Title: Cut and Paste
Authors: Tim Mott et al
Publisher: Electronic Arts
Source: 2755 Campus Drive, San Mateo, CA 94403
Subject: Language Arts
Topics: Word processor
Version: 1983
Display Language: English
Cost: $34.95 US (1986)
Tel. #: (415) 571-7171
Users: Grades 7 - 9
Components: 1 program disk, 1 document disk, user's manual (14p.), command summary card
System Requirements: Apple IIe/IIc, 64K, 1 or 2 disk drives, monitor, printer
Other Formats Available (not evaluated): IBM PC/PCjr/XT, Commodore 64, Atari

OBJECTIVES

This program is designed to be an inexpensive, practical, and easy-to-use word processing system for junior high use.

EDITOR DESCRIPTION

Program commands are constantly displayed at the top of each screen. Twelve built-in document formats and templates for common writing applications are offered including letters (thank you, complaint, personal, etc.), resumes, term papers, book reports, envelopes, etc. File names are limited to 12 characters. The program provides for line by line scrolling, scrolling to the beginning or end of a document, or scrolling by screen pages. An indent feature allows entire paragraphs to be indented five spaces from the left hand margin. Blocks of information can be moved within a document or between two documents. The program does not offer a search and replace function.

EDITOR EVALUATION

The constant display of commands makes them very easy to learn and remember. Document creation is very straightforward and user parameters can be easily set and recalled. Using the built-in templates assures proper format when completing outlines, letters, envelopes, etc. The user simply replaces the "dummy phrases" (e.g. today's date) with the appropriate information and ends up with a properly formatted document.

Cursor movement for editing is efficient and scrolling is quick. There is provision for storing up to 63 document names in the catalogue; however, the actual number allowed is dependent upon document length. Sound effectively draws attention to errors and helpful screen prompts guide the user through the necessary steps in the correction process. Text to be moved is effectively highlighted and the fact that it can be moved within the same document or to another document is a bonus. The lack of a search and replace function is a disadvantage.

FILE MANAGEMENT DESCRIPTION

This program is designed to operate with either one or two disk drives. Screen prompts guide the user through the process involved in saving, copying or deleting. Password security is not offered.

FILE MANAGEMENT EVALUATION

The screen prompts given for saving, copying or deleting files make the process very easy to follow. Since file deletion involves several steps as well as a "Don't Delete" abortion feature, accidental deletion of a file is unlikely.

PRINT FORMATTER DESCRIPTION

Three margin options are available: Print A is set for standard stationary with one inch margins, Print B is set for a standard envelope, and Print C is left for user parameter input. Margins within Print A and B can be permanently changed by the user if desired. Tabulation stops, which are set very five spaces, are activated using the tab key. The program offers left/right margin justification, automatic word wrap, and a choice of single or double spacing. The user is offered a choice of automatic sequential page numbering (at bottom centre) or manual user entry. The program provides a constant display of available memory space.

PRINT FORMATTER EVALUATION

The program offers a good range of built-in margin settings and user defined parameters can easily be set. Tabulation settings cannot be changed, but built-in settings at every five spaces is ample. The lack of half or triple spacing may limit the use of this program in advanced applications, but a choice of single or double spacing is adequate for most junior high situations. The widow protection which is offered is a definite strength as it ensures that only complete paragraphs are printed on each page. The fact that the program does not offer automatic centering between margins is a definite disadvantage, and the inability to choose the location for the automatic printing of the page number may prove limiting.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The fourteen page user's guide outlines basic program operation, editing operations, print commands, file management options, and instructions on how to achieve certain special effects. A quick command summary card is also included.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although the documentation is very short, it is clearly written and the excellent screen prompts given in the program itself make the need to reference the documentation unlikely. Evaluators found they could begin using the program within five minutes of opening the package.

APPLE - IBM VERSIONS

This report has been based upon an evaluation of the Apple version, however in reviewing the IBM version no significant differences were found.

SUMMATION

This program offers a "bare bones" word processing package. Although is does not offer the sophisticated functions found on more powerful packages, the limited functions it does offer combined with the constant display of commands and the excellent user prompts make it a very easy package to use. The fact that it loads quickly, is menu driven, provides built-in templates for common word processing applications, offers good built-in safeguards and opportunities to change one's mind, and operates on the same principle as a typewriter (e.g. tabulations are achieved via the tab key rather than a control key combination) are further program strengths.

Weaknesses of the program include the absence of a search and replace function, the inability to automatically centre, and the lack of an underline mode.

STATUS

The Apple and IBM versions of "Cut and Paste" have been authorized as **SUPPLEMENTARY** learning resources for grades 7 to 9.

PURCHASE INFORMATION

This product may be purchased for $34.95 US (1986) from Electronic Arts at the address provided at the beginning of this report. The program may also be available locally, check with your software dealers.

Defective disks will be replaced by the publisher free of charge within a 90 day warranty period. Subsequently, defective disks will be replaced for a fee of $7.50.

The program disk has the advantage of being capable of operation with more than one machine at a time; however, such use is subject to copyright laws and any license or purchase agreement.

DIFFÉRENCIATIONS

DESCRIPTION

Titre: Différenciations
Auteur(s): Emmanuel Chénard et al
Éditeur: Éditions FM
Source: 1113, avenue Desnoyers, Laval, Québec H7C 1Y6
Matière: Français
Sujets: Verbes, noms, adjectifs, genres, avec dérivés, sans dérivés, règne animal, règne végétal
Version: 1985
Langue d'affichage: Français
Coût: 49,95 $ (1985)
Tél.: (514) 324-0712
Utilisateurs: 10 à 16 ans
Composantes: 1 disquette, guide du maître (57 p.), lexique de lettres accentuées, certificat de bon travail
Matériel requis: Apple II+/IIe/IIc, 48K, 1 unité de disque, moniteur vidéo, imprimante (facultatif)
Disponibilité sur d'autres ordinateurs (pas d'évaluation): Commodore 64

OBJECTIFS

La différenciation fait appel à l'observation pour établir des comparaisons et des classifications. La différenciation est utile pour l'acquisition de l'orthographe, pour la compréhension de la nature des mots et pour la justesse du terme choisi. Ce didacticiel utilise la différenciation pour faciliter l'acquisition de la langue.

DESCRIPTION DU CONTENU PÉDAGOGIQUE

Le didacticiel se compose de quatre parties.

La première partie offre la démonstration du jeu. Cette démonstration optionelle présente un exemple de féminin et de masculin. Ensuite, l'utilisateur doit choisir la bonne réponse pour chacune des trois questions modèles. Une explication de la bonne réponse est présentée au bas de l'écran.

La deuxième partie contient les exercices pratiques sous forme de jeux. Cette partie est divisée en huit fichiers de 35 mots chacun. Le huitième est vide pour la création de l'enseignant/e. Ils sont:

1. verbes, noms
2. féminin, masculin
3. adjectifs, noms
4. je, tu
5. présent, futur
6. avec dérivés, sans dérivés
7. règne animal, règne végétal
8. fichier vide

Pour chaque jeu, deux rectangles s'affichent à l'écran portant chacun une inscription. Un mot à classer apparaît au centre inférieur de l'écran. L'utilisateur touche 1 ou 2 ou 3, selon le cas. Le nombre minimum de questions (de 10 à 35) à faire pour l'obtention du certificat est décidé par l'enseignant/e en utilisant l'éditeur. Après que toutes les 35 questions ont été faites, ou lorsque le jeu est terminé, l'utilisateur a la chance de corriger ses erreurs.

La troisième partie du programme est l'éditeur qui permet d'accéder aux fichiers, par un mot de passe, afin de mieux en adapter les contenus. L'éditeur permet la création de nouveaux contenus ou de modifier, annuler, imprimer ou de transférer des fichiers à une disquette supplémentaire. L'enseignant/e a l'option d'inclure le troisième choix qui indique que le mot à classer appartient aux deux groupes: 1 et 2. S'il y a seulement deux choix, le programme fournit la rétroaction appropriée.

La quatrième partie présente l'affichage des résultats et du certificat (s'il est mérité) du dernier utilisateur. Les résultats comprennent les points en prime que l'utilisateur peut recevoir pour corriger ses erreurs. Les résultats sont affichés à l'écran et/ou sur l'imprimante.

ÉVALUATION DU CONTENU PÉDAGOGIQUE

L'étendue du contenu est appropriée. Le programme n'a pas de suite logique dans les fichiers, mais les fichiers deviennent graduellement un peu plus difficiles. L'intensité, même si suffisante, serait améliorée par des banques de données plus grandes et l'inclusion de différents niveaux de difficultés par fichier. L'enseignant/e a l'option de créer ses propres banques de données, mais cela lui prendrait assez de temps.

DESCRIPTION DES TYPES D'INTERVENTION PÉDAGOGIQUE

L'interaction avec l'ordinateur consiste à entrer son prénom et son nom, à faire des sélections de menu, à choisir le numéro 1, ou 2, ou 3, à tourner des pages, à prendre des décisions concernant les options de son, à imprimer et à quitter. L'utilisateur n'a pas la chance de corriger ses entrées.

Toutes les questions sont du même format: de choix multiples, ayant deux ou trois choix. Les réussites et les erreurs sont comptées et affichées au coin supérieur gauche. Trente-cinq questions sont posées au hasard, à partir d'une banque de données de trente-cinq; les questions sont présentées seulement une fois par exercice. L'utilisateur a droit à un essai par question; les erreurs sont représentées à la fin de l'exercice.

Plusieurs types de rétroaction sont utilisés dans ce programme. La rétroaction positive consiste en un mot qui se déplace sous le rectangle approprié ou sous les deux rectangles si la réponse est le numéro 3. Une réussite s'inscrit, accompagnée d'un renforcement sonore, si on a initialement choisi cette option (environ 5 airs musicaux différents). La rétroaction négative consiste en un mot qui se déplace, puis il s'arrête en chemin et disparaît. Une erreur s'inscrit alors au coin supérieur gauche. Un renforcement sonore accompagne ici aussi cet affichage. La rétroaction corrective est employée après chaque réponse: soit pour confirmer une réponse juste et/ou pour trouver la raison de l'erreur, par un exemple du bon usage du mot qui est présenté en contexte. Lorsque le jeu est terminé, la rétroaction quantitative s'affiche à l'écran. Elle inclut le titre du jeu, le nom de l'utilisateur, le pourcentage réussi, les points en prime pour les corrections, le pourcentage final et les mots qui ont causé des difficultés. Une mention indique si les critères sont atteints pour l'obtention du certificat. Ce dernier s'affiche alors à l'écran. Il est possible d'obtenir les résultats et le certificat sur imprimante.

ÉVALUATION DES TYPES D'INTERVENTION PÉDAGOGIQUE

L'interaction est facile et appropriée pour la clientèle cible. Le programme a un rappel amical si on appuie sur une touche inappropriée. C'est dommage que l'utilisateur n'a pas la chance de corriger ses entrées.

Seulement un type de questions est employé dans ce programme, soit les choix multiples. Ceci est suffisant pour la clientèle cible. Si les questions étaient numérotées, le programme serait plus facile pour l'utilisateur. Même si l'enseignant/e peut changer le nombre minimum de questions à faire pour l'obtention du certificat, le nombre de questions qui apparaît n'est pas changé. L'utilisateur doit choisir de quitter le programme ou de faire toutes les 35 questions, ce qui est excessif pour des élèves de 6e année. Des banques de données plus grandes, avec différents niveaux de difficultés et une option qui imposerait une limite au nombre de questions présentées, seraient avantageux.

La rétroaction positive est efficace, car elle confirme la réponse de l'utilisateur. La rétroaction négative cependant, manque de clarté, sans les renforcements sonores. La rétroaction quantitative est détaillée et informative. Une option pour imprimer les résultats est incluse, afin de fournir de l'information à l'enseignant/e sur les élèves, et les mots qui leur ont causé des difficultés.

DESCRIPTION DES CARACTÉRISTIQUES TECHNIQUES

Le programme utilise des caractères de format régulier, des lettres minuscules et majuscules et tous les caractères français spéciaux, nécessaires. L'écran est divisé pour présenter les choix, les mots et les contextes. Une pomme clignotante est l'indice demandant une entrée. Le son est optionnel et le programme incorpore la mise en évidence. Dans le mode éditeur, les touches numériques sont re-programmées afin de générer les caractères français spéciaux.

Une disquette supplémentaire peut être utilisée pour sauvegarder des fichiers.

ÉVALUATION DES CARACTÉRISTIQUES TECHNIQUES

Les caractères utilisés sont appropriés à la clientèle cible et l'emploi de tous les caractères spéciaux français est avantageux. La création technique est bien conçue. Les effets spéciaux sont efficaces pour mettre en valeur ce qui est nécessaire. L'accès aux caractères spéciaux par seulement une touche est très pratique. Le son facultatif est utile pour l'emploi dans une salle de classe. Les graphiques et le son sont appropriés; cependant, ils ne sont pas trop stimulants.

Il n'y a pas d'information qui indique à l'utilisateur d'abaisser la touche "caps lock", même si c'est nécessaire pour certains des choix (O/N).

L'élève peut utiliser ce programme facilement et sans l'aide de personne. En tout temps, il est possible de terminer le jeu en appuyant sur CTRL Q.

DESCRIPTION DU MATÉRIEL D'APPUI

Le programme n'a pas de système de gestion, mais il a la capacité d'enregistrer sur la disquette les résultats du dernier utilisateur.

Il possède un système éditeur, réservé à l'enseignant/e, et auquel on accède par un mot de passe (qui peut être changé). Cette option permet à l'enseignant/e d'ajouter/annuler des fichiers, d'en transférer à une disquette supplémentaire, d'imprimer un fichier, de changer l'ordre de présentation des mots et des contextes ou de le modifier en changeant les critères de succès pour l'obtention du certificat.

Le guide du maître (57 p.) donne la raison d'être du programme et les objectifs. Il suggère des activités préalables et antérieures, et indique des façons d'intégrer les activités. La documentation décrit point par point l'utilisation du programme et de l'éditeur. Toutes les questions et les réponses du programme sont présentées dans le guide. Il y a aussi une carte, un guide des lettres accentuées utilisées dans le mode éditeur et un grand certificat qui peut être reproduit.

ÉVALUATION DU MATÉRIEL D'APPUI

Les élèves avec des habiletés en lecture de 6e année francophone, 7e immersion devraient pouvoir travailler avec ce programme, aussi bien que ceux de 7e à 10e année en français langue seconde.

La documentation est complète et les directives faciles à suivre. La fonction éditrice est bien expliquée; elle donne une capacité renouvelable au programme et pour qu'il puisse être adapté à tous niveaux de classe. L'enseignant/e doit faire attention pendant l'utilisation de l'éditeur, car il est assez facile d'annuler accidentellement un fichier.

Le manque d'un système de gestion est une grande faiblesse, vu que seulement les résultats du dernier élève sont sauvegardés. L'utilisation d'une imprimante peut rectifier un peu cette absence.

Le programme est facile d'emploi du point de vue de l'utilisateur et nécessite un minimum de surveillance par l'enseignant/e. Des demandes supplémentaires sont imposées sur le temps de l'enseignant/e, si il/elle veut utiliser le programme à sa capacité en se servant de l'éditeur.

SOMMAIRE

Les points forts de ce programme sont sa capacité renouvelable avec l'éditeur, une bonnne création technique, la rétroaction corrective, la rétroaction quantitative et une documentation concise.

Les points faibles comprennent l'enregistrement insuffisant des résultats, seulement un type de questions, un apprentissage qui ne se prête pas à l'interaction et l'absence d'un examen final.

Malgré ses faiblesses, ce programme fournirait tout probablement des exercices adéquats de classification.

STATUT

Ce programme, "Différenciations", est reconnu comme ressource pédagogique de statut "**SUPPLÉMENTAIRE**" pour les élèves de 6e année francophone, 7e année immersion, 8e année français langue seconde programme de 9 ans, et 10e année français langue seconde programme de 6 ans.

ACHAT

Ce programme est disponible des Éditions FM, à l'adresse indiquée ci-haut, au coût de 49,95 $ (1986). Un prix au rabais peut être obtenu pour un achat excédant 9 copies. Des disquettes de rechange peuvent être achetées pour 10,00 $ chacune.

Les disquettes fautives sous garantie seront remplacées sans frais, dans les 90 jours suivant l'achat. Par la suite, elles seront remplacées pour 7,00 $.

À cause de l'interaction fréquente avec le programme, une disquette ne peut amorcer plus d'un ordinateur à la fois.

ENABLE LEARN

DESCRIPTION

Title: Enable Learn
Author: None Cited
Publisher: The Software Group
Source: c/o Nova Productivity, 1193 Richmond Rd, Ottawa, Ontario K2A 0G3
Subject: Business Education
Topics: Word processing, spreadsheet, data base, graphics, communications

Version: 1.1
Display Language: English
Cost: LRDC Buyer's Guide
Tel. #: (613) 728-1831
Users: Grades 10 - 12

Components: 5 disks (system, operation, tutorial, utilities & training), instructors's manual (126p.), 10 student workbooks (138p.), 1 set of Enable's documentation (5 reference books), 7 transparencies

System Requirements: IBM PC/XT/AT, PC-DOS 2.0 or later, 320K RAM, dual floppy drives or a floppy drive and hard disk system, graphics card & monitor, asynchronous communications card & modem, null modem cable

Other Formats Available (not evaluated): IBM compatibles

OBJECTIVES

"Enable Learn" is an integrated software program designed to familiarize the student with the five applications of word processing, telecommunications, spreadsheet, graphics and data base management systems and to provide a means of sharing information between these components.

WORD PROCESSOR DESCRIPTION

"Enable Learn", the modified version of the retail "Enable" program, offers reduced capacity and thus reduced cost as an integrated learning package. Document saves are limited to 10 single spaced pages. The user can enter and edit in the same mode. A variety of cursor moves/jumps can be accommodated, and similarly a choice of delete options is available. Default values can be user altered and documents can be reformatted at any point during document creation. The program offers automatic centering between columns; a choice of single, double, or triple spacing; horizontal justification; and automatic or manual pagination.

WORD PROCESSOR EVALUATION

This program offers an excellent array of cursor moves and deletion possibilities; however, the move sequences may prove difficult to recall without referencing the guide. Default values can be easily overridden, but it is unfortunate that ruler settings can not be saved for later use.

Screen display approximates the printed copy, and the window feature allows the user to simultaneously view up to eight different files in any of the applications. Each window can be moved, shaped, overlapped, or zoomed to full-screen size. Attributes are colour coded on screen-- the user must depress Alt/S to view the actual attribute invoked.

The ten page maximum save may prove limiting; however, users can save information entered beyond this limit by copying the text to another window and individually saving information in both windows.

FINANCIAL SPREADSHEET DESCRIPTION

The spreadsheet configuration contains 255 rows by 255 columns; however, the program's capacity limits saves to 50 rows by 50 columns. The program offers all calculation functions as well as selected statistical, financial, logical and data base functions. Spreadsheets can be combined by copying, adding or subtracting values from designated cells, but they cannot be consolidated so that changes in one spreadsheet affect another.

"Enable Learn's" protection facility includes a global protection for the entire worksheet or range protection for a specific cell or range of cells. The protection facility can be turned off for cell adjustments.

Split screen viewing enables two portions of the spreadsheet to be viewed simultaneously and the user has the choice of synchronized/unsynchronized scrolling. Global format options allow selection of: fixed decimal point and number of digits, integers only, dollar sign use, commas every three digits, percentage values, dates from numeric entries, exponential scientific notation, and conversion of entries into pictographs. Column widths can be adjusted from 2 to 72 characters. Individual cells/range of cells can be copied and moved, rows or columns can be inserted or deleted, and selected ranges of cells can be printed if desired.

FINANCIAL SPREADSHEET EVALUATION

"Enable Learn's" spreadsheet offers a good range of features. Recalculation, data manipulation, editing, and viewing are all easily accomplished. The major criticism of the spreadsheet is that users have access to a larger spreadsheet (255 x 255) on-screen but they can save only a small portion (50 x 50) within one file.

DATA BASE DESCRIPTION

The full-fledged "Enable" data base has a capacity of 65,000 records with up to 254 fields containing up to 254 characters each (for a total of 64,517 characters per record). "Enable Learn" will save a maximum of 50 records. Field names are definable by the user and can be any combination of letters and numbers up to 10 characters long. Records can be selected on the basis of less than, more than, greater than or equal to, etc. When a combination of fields is required the logical operators of AND, OR, and NOT may be used. Wild card symbols and parenthesis may also be invoked. Sorts may be ascending or descending and can be performed on up to eight fields. Records can be viewed on screen and marked for further processing.

Data bases can have 10 indexes each containing up to 100 characters. After using the index command to create an index, the program will automatically update that index.

The program provides four report formats: columnar report (format specified), mail merge (customize form letters), "Put it here" (customize report form on-screen), and DBMS report language (commands used for sophisticated reports).

DATA BASE EVALUATION

"Enable's" data base requires a minimum of 320K for operation. Users are strongly advised to plan the design of their databases on paper before creating a data base.

Report generation is fairly powerful, provided users program in the appropriate dot commands. However, classroom instruction in this area would likely be required. Graphic presentations can be easily done using data from the data base.

Records can be easily maintained through use of commands such as undelete, archive, backup, restore, and rename.

OTHER CAPABILITIES: DESCRIPTION

The graphic component offers two or three dimensional bar and stacked bar graphs, line graphs, pie charts, and two-dimensional xy graphs. Up to eight data groups can be specified for a single graph. Graphs can be created from information in the spreadsheet or data base and can be displayed on the screen, produced on the printer or plotter, or copied to a word processing document.

The telecommunications application allows the user access to information utilities, computerized bulletin boards, electronic mail services, and hook-up with other personal computers, minicomputers and mainframes (up to 64 setups can be established).

"Enable's" PC-DOS facility enables the user to work in DOS while retaining an open file and provides a menu generator to customize menus.

OTHER CAPABILITIES: EVALUATION

The graphics and telecommunications applications add to the versatility of the package. There is a logical exchange of data between applications by using the windows, merge commands, and combine commands.

FILE MANAGEMENT: DESCRIPTION

Moves within a file can be designated by word, sentence, paragraph, column or graph. As the user enters data, "Enable Learn" will accept, reformat, or reject the data based upon the rules established in the design. The program's search and replace command can be user defined to ignore case, to search from or to, to search a particular column or all columns, etc.

Interface is allowed with ASCII and DIF files and with files created on Volkswriter, Easywriter, Wordstar, Multimate, Lotus 123, VisiCalc, or dBase II.

Printing can be done by entire file or by selected pages, and the user can instruct the printer to stop at any point during printing. The program's enhanced text attributes include a choice of boldface, italics, underline, superscript, subscript, compressed, wide or quality text. The program will also print borders and horizontal and vertical lines.

FILE MANAGEMENT: EVALUATION

Using windows to copy or move blocks of text is an easy and flexible process. While on-screen error messages are brief, the appendix of the manual offers explanations in greater detail. The program offers good interface with other programs on the market.

The word processing component permits the creation of a table of contents, indexes, and headers or footers. It also offers the features of mail merge, calculator, and embedded commands. All of the word processing functions may be used in any application component.

The program offers good print flexibility, allows the user to print to screen or paper, and permits the user to work on a file while printing is taking place. Unfortunately the program does not provide the option of spooling or provision for priority printing.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The instructor's and student documentation includes a table of contents, an overview, lesson objectives, and fifteen lessons. The student workbook offers practice exercises, review questions, definitions for each lesson, a list of keystrokes, and an appendix explaining procedures within each application. The answers to the review questions are provided at the end of the book.

The training disk contains the files to be used with the lessons. An on-screen interactive tutorial is available through the Help option in the main menu.

The five reference manuals each offer a table of contents, index, appendix, and numerous pictures and illustrations.

IMPLEMENTATIONAL SUPPORT EVALUATION

The student and instructor documentation provide a structured tutorial for learning the program's features. The major flaw in the documentation is that the default configurations given refer to the retail version of "Enable" and not the student version of "Enable Learn".

The reference manuals provide comprehensive, step-by-step explanations of each operation and are colour coded by topic.

EASE OF USE EVALUATION

As with most integrated packages, "Enable Learn" invokes a large number of commands which initially can be almost overwhelming. While the quick reference guide proves an invaluable resource, teachers would need to spend time becoming thoroughly acquainted with the program before offering instruction to their classes.

SUMMATION

As is the case with any integrated package, some individual applications are less powerful than a dedicated package of the same offering (e.g. word processing). However, as a total integrated program "Enable Learn" is a solid package offering good options and numerous interface capabilities. Users are reminded that the program requires a minimum of 320K for operation. The major weakness of "Enable Learn" is that it has been adjusted and marketed with restricted saving capabilities. While the saves permitted are adequate for high school use, the documentation has not been significantly adjusted to reflect these restrictions.

The biggest strength of "Enable Learn" is its offer of site licensing which provides an excellent opportunity for educators to legally access a variety of applications at minimal cost.

STATUS

"Enable Learn" has been authorized as a **BASIC** learning resource for grades 10 to 12.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distributing Centre at the following classroom package prices (less a 15% educational discount and an additional 25% subsidy discount): $533.00 for 10 students, $623.00 for 15 students, $713.00 for 20 students, $803.00 for 25 students, $893.00 for 30 students and $983.00 for 35 students. The five master disks enclosed in the package may be used to reproduce an unlimited amount of classroom disks for student/teacher use.

The Software Group provides a warranty on the workmanship and materials on all disks included in the "Enable Learn" package for a period of 90 days from the date of purchase. If during this 90 day period a defect should appear in a disk, the disk may be returned for replacement.

EQUATIONS III

DESCRIPTION

Title: Equations III
Authors: Don Ross & Mark Appel
Publisher: Microcomputer Workshops
Source: c/o CBS Interactive Learning, One Fawcett Place, Greenwich, CT 06836
Subject: Mathematics
Topics: Solving linear equations with one variable using the distributive property
Components: 1 disk with backup, teacher's guide (5p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer (optional)
Other Formats Available (not evaluated): Available only in Apple format

Version: 1985
Display Language: English
Cost: $29.95 US (1986)
Tel. #: (203) 622-2771
Users: Grades 10 - 12

OBJECTIVES

This program is designed to give students practice in solving linear equations with one variable using the distributive property and the axioms of addition, subtraction, multiplication and division.

PEDAGOGICAL CONTENT DESCRIPTION

EQUATIONS III deals with solving randomly generated equations of the form of "AX + B(CX + D) = EX + F" where A, B, C, D, E, and F, are integers.

The program consists of three parts:

1. INSTRUCTIONS: The instructions explain the use of six procedural rules and how to use the program. The user also has the option of reviewing a sample problem.
2. PROBLEMS: The student may choose from one to ten problems in each set. The solution to each equation requires the use of procedural rules which are listed. Using the screen as a worksheet, the student solves the equation in a step-by-step manner which is constantly updated as the progress is made toward the solution. An error analysis is provided after each problem with a summary of errors at the end of each set of problems. These may be printed but are not saved on the disk.
3. TEST GENERATOR: The CREATE A TEST option permits the teacher to create a classroom test of up to 12 problems, or print questions for additional practice.

PEDAGOGICAL CONTENT EVALUATION

The range of content is appropriate for the target audience. While the scope of content is narrow, the content is covered thoroughly in a highly structured problem solving manner. Although some flexibility in the solution of problems is allowed, brighter students who wish to combine steps or use shorter problem solving procedures may find the step-by-step process frustrating. The incremental steps within the sequence of a particular problem are appropriate; however, the program does not provide for the development from easy to difficult in the choice of problems, nor does it provide branching to easier or harder problems. The depth is appropriate in that many sets of problems can be done and additional problems can be printed, if required.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of name entry, menu selection, selecting the number of problems (1 - 10), choosing a procedural rule to follow, and carrying out the operations required to solve the equation. RETURN is used for page turning, ESC to return to the menu, R to reread pages in INSTRUCTIONS, S for the summary of a solution, M for more problems, and P for the printouts.

Questions for the problem section and test generator are randomly generated. Feedback is textual and is provided consistently. A short complimentary comment is made after a correct response. After making an error, a student is given a second chance with an explanation of why the answer is incorrect. After a second error, the correct answer is provided. The user must then input the correct response before proceeding. Quantitative feedback is provided in an error analysis after each problem and at the end of each set of problems. If the student presses "S", a summary of the solution for that problem is presented. Printouts of the error summary and the solutions are available. No specific pre- or post-tests are included.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is generally consistent and easy with the students being actively involved in each step of the problem solving. However, there is insufficient meaningful interaction in the INSTRUCTIONS portion and this becomes somewhat boring. Although the highly structured instructional format may be an effective learning approach for students who are having difficulties, proficient students will likely find this to be tedious and unmotivating. Even with the program accepting some alternate procedures for solving the equations, no shortcuts are allowed. It is unfortunate that more flexibility is not provided within the problem solving process. The questions are effectively randomized, but there is no consideration given to easy or difficult levels in the program.

Feedback is immediate and is provided at each step throughout the problem solving process. The inclusion of the explanations within the negative feedback is advantageous. The inclusion of the print option for the error analysis and the complete solution to the problem is an asset. Unfortunately, this information is not stored on the disk. Although no specific pre- or post-test are included, the test generator can be used for this purpose.

TECHNICAL CHARACTERISTICS DESCRIPTION

Text, in both upper and lower case letters, and numbers are in standard size. Sound, colour, and graphics (other than the title page) are not used in this program. Inverse is used to highlight some key terms, titles, and prompts. The screen which is used as the student's worksheet is divided into three parts: equation to be solved, work area, and instruction/message area.

TECHNICAL CHARACTERISTICS EVALUATION

The displays are clear and readable. The use of inverse print for highlighting is effective in attracting the user's attention. The program is easy to use and appears to be reliable under normal use.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No entry competencies are specified. There is no management system, and no user support materials are provided in this program. The program does include some print options which allow the user to obtain print copies of the error analysis, all steps in the solution to a problem, and sets of test questions.

The documentation includes the program objectives, a program description and its sequence, an explanation of the error analysis procedure, information on the test generator, and disk loading instructions.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although no entry competencies are specified, it is assumed that students will have instruction in solving equations using the distributive property prior to using the program. No user support materials are provided; however, the teacher may use the test generator to produce questions that can be used for added practice. The print options are beneficial, but it is unfortunate that a management system is not included to store and update student records for the teacher.

The teacher documentation is clear, concise, and provides sufficient information to use the program easily. Minimal teacher computer competency and supervision will be required in implementing this program.

SUMMATION

The major strengths of the program are: the structured approach to solving equations using the distributive property, the ease of use, good student involvement in the problem solving section, useful print options, and a test generator which can be used for making and printing tests.

Although some flexibility in the solutions to problems is allowed, it is unfortunate that no provision is made for combining steps or allowing shorter procedures in order to make this program appropriate to more proficient students who wish added practice. The inclusion of a management system would add strength to the program.

STATUS

"Equations III" has been authorized as a **SUPPLEMENTARY** learning resource for Mathematics 10, 13 and 23.

PURCHASE INFORMATION

This product may be purchased for $29.95 US (1986) at the address provided at the beginning of this report. Lab packs, consisting of the teacher's guide, one disk with backup plus nine additional disks, are available for $89.85 US (1986). Bulk purchase discounts are provided by CBS Interactive Learning with the discount dependent on the number of units bought. This product may also be available locally, check with your software dealer.

Defective disks will be replaced at no charge within 90 days of purchase. Within one year of invoice date, defective disks will be replaced (on a one-time-only basis) for a fee of $5.00. Disks damaged by users can be replaced at a cost of $15.00 per disk.

As the disk is accessed with each return to the main menu, a disk may be used with only one computer at a time.

FAY: THE WORD HUNTER

DESCRIPTION

Title: Fay: The Word Hunter
Authors: Dave Vincent & Allan Forsberg
Publisher: Didatech Software
Source: 3812 William Street, Burnaby, BC V5C 3H9
Subject: Language Arts
Topics: Spelling skills
Components: School edition - 1 disk & backup, teacher's guide (26p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Commodore 64

Version: 1985
Display Language: English
Cost: $44.95 (1986)
Tel. #: (604) 299-4435
Users: Grades 3 - 6

OBJECTIVES

The program is designed to achieve the following objectives: aid students in the recognition, recall and spelling of words they most frequently read and write; present words in lists to students for immediate and delayed recall; promote the visual image of the word by requiring the student to look at the word in isolation and then search for the correct sequence of letters among a random string of letters; present students with the words most frequently misspelled, 200 of which have been programmed to appear more frequently than other words; and provide an entertaining and challenging learning situation in which to achieve the objectives.

PEDAGOGICAL CONTENT DESCRIPTION

This program is composed of a word search game which can be used independently and an authoring system which is used to create word lists for use with the word search game. The word search component is an animated game in which students identify nine randomly chosen words which are arranged vertically or horizontally in a grid puzzle. The player's goal is to eliminate the random letters in the grid, to locate the hidden words and to reveal the hidden words corresponding to the words appearing at the bottom of the screen. Twelve shots are provided for locating and isolating each hidden word. If the game is completed within the time limit, a "Bonus Run" game is provided for acquiring extra points.

The program contains more than three thousand high frequency words that are used in commercial spelling programs. The words are arranged in six levels of ascending difficulty. Each level contains approximately five hundred words. The complexity and length of the words increase with each succeeding level. Each level is timed with the time being decreased at the higher levels. Levels five and six are more complicated in that blanks may appear indicating only the number of letters in several words hidden among the random letters. The user can enter the program at any level and once completed, s(he) may continue at the same level or advance to the next level.

PEDAGOGICAL CONTENT EVALUATION

The presentation of word lists in a game format encourages the development of word recognition and reinforces spelling skills. The program deals effectively with visual retention and develops sight word vocabulary. The emphasis on the use and repetition of high frequency vocabulary provides valuable practice to the student. The range, sequence and depth of content are generally appropriate and effective. Sequencing from easy to difficult is evident throughout the program and is appropriate for most of the target audience; however, it would likely be more effective for the lower end of the target audience rather than the higher end since the vocabulary may be too simplistic for them. Nevertheless, this problem can be alleviated by the teacher using the authoring system to add word lists. Adequate depth is ensured by the option to repeat a practice at a particular level along with any additional words the teacher may input.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of menu selection and keyboard or joystick manipulation to play the game. If the keyboard is used, the letters A (up), Z (down), and right and left arrows keys control Fay's movements around the grid. The SPACE BAR is used to fire the laser.

The words used in each level are selected randomly from approximately five hundred words. The words at the first level contain eight characters while the maximum length is twelve characters at levels five and six. The authoring system allows the teacher to input word lists of fifty to five hundred words at each level.

The feedback is provided within the game format. When a word is correctly identified with a laser shot, the other letters disappear on that line. When a line not containing a word is fired at, no change is shown on the grid. If the student is unable to find all nine words within the time limit or uses all the shots available before completing the puzzle, the game ends. Quantitative feedback consists of revealing the hidden words in the puzzle and displaying the student's score. If the student's score is the highest on that particular level, (s)he is rewarded with a congratulatory message and audio feedback. Then the student is asked to enter his/her name so the score can be recorded and displayed.

No branching is provided in this program. Rate and amount are both program controlled while the user is able to choose the level at which to play.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction and questioning techniques are appropriate and generally effective for the target audience. However, the keyboard manipulation may cause some confusion for students when they use the program initially. The program is easier to use with a joystick rather than keyboard, especially for the younger target audience. The authoring system is a valuable feature in allowing teachers to create word lists and structure them according to the needs of their students.

Positive and negative feedback techniques are adequate. Although the game format is highly motivating, it is somewhat difficult to get an accurate evaluation of how much learning actually takes place. Quantitative feedback provides only a score to the student. The program's value would be enhanced by providing the student with a list of the words which were missed or ensuring that these words are repeated in subsequent games. Motivation is kept high by providing the student with points for each word found, providing an opportunity to gain extra points with Bonus Run and promoting competition by allowing the student with the highest score to have his/her score recorded.

TECHNICAL CHARACTERISTICS DESCRIPTION

Color, high resolution graphics and optional sound are used to depict each word puzzle in an underwater setting. Animation is used to show Fay's movements and larger than normal upper case letters are used to display the word puzzles. Each game is completed on a single screen.

TECHNICAL CHARACTERISTICS EVALUATION

The displays use color, animated graphics and sound effectively. Although a color monitor is preferred, a monochrome monitor is satisfactory. The graphics are well designed and add interest to the program. Character size is appropriate for most of the program. In the school edition, the text in the Help section has been improved, but there is still insufficient spacing between lines. It is unfortunate that only upper case letters are used, especially in a spelling program. The selective erasing that occurs during the word search is effective and beneficial to the students.

The program is easy to use especially if the joystick is used. Although keyboard manipulation has been improved by eliminating two letter keys, it would be improved even more by employing only arrow keys on an Apple IIe. It is noted that there are no instructions featured at the beginning of the program, but they are available in the HELP program. The program appears to be reliable and bomb-proof under normal use.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The entry competencies that are required are as follows: the ability to read and write at the grade two level, the ability to isolate words from among a random string of letters and average ability in hand-eye co-ordination. There is no management system. However, an authoring system which allows the teacher to create word lists is included.

The teacher documentation includes an introduction to the program, educational objectives, prerequisite skills, a teacher's checklist, suggestions for integrating the program into a classroom, explanation of the authoring system, a sample program run and program operating instructions. No user support materials are provided.

IMPLEMENTATIONAL SUPPORT EVALUATION

The entry competencies which have been identified are appropriate for the target audience. The authoring system is a good feature in the program and is relatively easy to use; however, teacher time will be needed to create the words lists. The teacher also needs to make sure that the word length does not exceed twelve letters since the program provides no check on word length and more than twelve letters can be typed. The inclusion of a management system with the ability to record scores for each student on different levels and list words which have been missed would be most helpful to the teacher. Also, a function that would allow the teacher to direct student progression through the levels would be a useful feature.

The documentation has been combined into one manual which is easy to use. The program is easy to implement in the classroom and could be adapted to a variety of subject areas if the teacher wishes to create new word lists.

SUMMATION

The program provides good drill and practice in word recognition and the development of visual retention as well as in spelling skills. The program's range and sequence are excellent with the game format providing highly motivating practice. The program is easy to use once the student has some practice in the required hand-eye co-ordination skills.

The major weakness of the program is the lack of evaluative information to both the student and teacher since no information on skill weaknesses is provided. The inclusion of a management system to do this task would be most beneficial. Also, the text should be in upper and lower case letters.

STATUS

"Fay: The Word Hunter" has been authorized as a **SUPPLEMENTARY** learning resource for grades 3 - 6.

PURCHASE INFORMATION

This program may be purchased for $44.95 (1986 school edition) at the address listed at the beginning of this report. Lab paks, consisting of one complete school edition plus disks and materials for five workstations, are available for $84.95 (1986). Discounts are given by Didatech Software for bulk purchase of ten copies or more. This package may be available locally, check with your software dealer.

Defective disks will be replaced free of charge by Didatech Software. Damaged disks will be replaced for a $10.00 fee if the damaged disk and registration card are returned to Didatech Software. Updates will be exchanged either free of charge or for a nominal fee.

As the disk is accessed at the start of each new game, there should be one disk provided for each computer used.

FRENCH ACHIEVEMENT I: VOCABULARY

DESCRIPTION

Title: French Achievement I: Vocabulary
Authors: Doug Higgins & John McIntyre
Publisher: Microcomputer Workshops
Source: c/o CBS Interactive Learning, One Fawcett Place, Greenwich, CT 06830-9990
Subjects: French Language Arts
Topics: French vocabulary drills
Components: 1 disk with backup, teacher's guide (7p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): IBM PC/PCjr, Tandy 1000

Version: 1982
Display Language: French/Eng.
Cost: $49.95 US (1986)
Tel. #: (203) 622-2771
Users: Grades 10 - 12

OBJECTIVES

This program is designed to give practice in preparing for the vocabulary section of the College Entrance Examination Board French Achievement Test. It can also be used to strengthen and review vocabulary (from levels III, IV, V U.S.).

PEDAGOGICAL CONTENT DESCRIPTION

The program is a straight-forward multiple choice vocabulary drill and is intended for review and practice. A sentence is presented with a blank. The user must choose the answer from 5 choices, the last one being to skip the question, that best completes the sentence.

There are 6 pages of information, given in English, explaining how the program works, what it contains and asking the user's preference of random or sequential questions. The drill questions are presented in groups of 20 from a data bank of 150 questions each with the options of translations and explanations.

A 600 word dictionary is included to explain every word that is a possible choice.

PEDAGOGICAL CONTENT EVALUATION

The content is suitable and effective as a review and practice drill. The content range and sequence are satisfactory. The program presents a variety of word types (nouns, verbs, adjectives, adverbs, etc.) and the user has a choice of receiving the questions in random or sequential order. The depth is satisfactory since the user may choose how many groups of 20 questions he or she wants to do.

The content is accurate except for 4 instances: #33 has "à la fin" instead of "à"; #35 has "à les deux" instead of "à"; #39 has "l'ecole" instead of "l'école"; and, in #123 the English translation says "to indicate the place of birth" instead of "to indicate the place and date of birth".

The readability is appropriate to senior high students. To be successful, the user will require quite an extensive vocabulary to understand the sentences. Some of the distractors are very easily eliminated while some are rather tricky uses of homonyms, English words which have been inaccurately adopted with a French pronunciation, or words which may be easily mistaken for another on first glance.

INSTRUCTIONAL FORMAT DESCRIPTION

The student interaction involves page turning using the return key, entering answers with the number keys (1, 2, 3, 4 or 5), selecting a translation (T key) and electing to read English definitions of the foils (identified by the number of the selection).

The user may elect to have the questions presented randomly or sequentially from a specific starting point. The drill questions are selected from a data bank of 150 questions and are presented in groups of 20 questions. The order of the four distractors for each question is randomized.

Only one attempt at a question is given. However, the user may opt to skip it in which case he or she may elect to attempt it at the end of the drill. There is no opportunity to correct an input. Questions which were incorrectly answered are not automatically represented; however, they may reappear in a later part of the drill if random selection was chosen.

Positive feedback is chosen randomly from a limited data bank and is provided after every response. This consists of an arrow pointing to the highlighted correct answer and a highlighted text message. The user has the choice of seeing the translation of the sentence and an explanation of the other answers.

Negative feedback consists of an "X" placed by the selected answer and the highlighting of the correct one. A sympathetic text comment is also added, for example: "C'est dommage"; "Ce n'est pas juste"; or "Ce n'est pas la fin du monde." The question is also translated using the correct answer and a definition of the incorrect choice is given. The student may then see the other definitions or continue to the next question. The incorrect answers are reviewed at the end of the drill giving the definitions of the words chosen incorrectly along with the ones that should have been chosen.

Quantitative feedback is given at the end of every 20 question drill. The user is given the number of correct answers, the number incorrect, the number skipped and an approximate French Achievement Score on a scale of 300 - 800. The errors for that group are listed. If the user does more than one group at one sitting, the quantitative results are cumulative. The results are not recorded since there is no management system.

INSTRUCTIONAL FORMAT EVALUATION

The student interaction is very easy; however, if a wrong entry is made, the user has no opportunity to correct the input. It should also be noted that the method of interaction does not promote learning or retention of vocabulary as effectively as would typing in the correct answer. As a review, though, it could be suitable since the intent of the program is NOT to TEACH.

The randomization of the questions and of the answers is effective. The student however is not given the opportunity to repeat a question that was missed, only those which were skipped.

Positive and negative feedback are both good. There is corrective feedback for every error giving not only the correct answer, but also explaining why the entry was incorrect. Explanations are complete and sometimes indicate gender. Attention may be drawn to homonyms such as foi, foie and fois. For phonetically similar words in French and English, the student is given a hint such as: "Were you thinking of ....?". The user also has the option of verifying the definitions of all the choices for that question.

The quantitative feedback is quite comprehensive including not only the words that were wrong but also those which should have been chosen instead.

TECHNICAL CHARACTERISTICS DESCRIPTION

The program uses both upper and lower case letters in normal size print. All the special French characters are used where required. The user does not have to enter any accents since inputs consist of only numerical entries.

Special features such as inverse highlighting and an arrow pointing to the correct answer are used to draw attention to the correct answer. An "X" is used to indicate an erroneous answer while highlighting indicates the correct one. The written feedback indicating whether the answer is correct or incorrect is also highlighted.

The keyboard is locked except for the numbers (1 - 5). The "T" is unlocked after choosing one of the numbers (1 - 4). There is no built-in escape out of the program.

TECHNICAL CHARACTERISTICS EVALUATION

The displays are appropriate, readable and well laid out. Inverse highlighting is appropriately used for emphasis and for directing the attention to a specific word(s).

The program is extremely easy to use and the locked keyboard further reduces the chances of accidental errors. An escape option would be useful to the student who wishes to quit early, with quantitative results given on what was done.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

There is no management, editing or authoring system included in the program.

The teacher's documentation consists of a 7 page booklet which includes the program objectives, a description of how it works and an explanation of the scoring system. It also suggests some reinforcement activities but includes no user support materials.

IMPLEMENTATIONAL SUPPORT EVALUATION

The entry competencies are not adequately specified since there is no comparison available between the program of study in the U.S. and that of Alberta. The user would certainly need at least one year, possibly two years of Core French, before attempting this program.

The lack of a management system in this program is a major disadvantage as the teacher has no feedback on the student's work. A system which at least records the user's results (and errors since they are pointed out) would be advantageous. A print-out of the errors would be beneficial to the user and to the teacher. The teacher could also benefit from some control over the work to be done by the students. An editing system which would allow the teacher to include his or her own vocabulary words and/or sentences would be a great asset.

The teacher documentation is less than adequate. The scoring system would be more meaningful if it specified the criteria for success. As such, scores from 300 - 800 are rather meaningless. A list of the sentences with their possible choices should be included in the teacher documentation and would be useful in the selection of sequentially presented questions. User support material for reinforcement could have been included.

The disk requires a minimal amount of computer competency from the teacher and the student, and minimal teacher supervision. The errors are very well identified to the user but are not recorded for the benefit of the teacher. The user would need to write his or her errors down on a piece of paper.

APPLE - IBM VERSIONS

This report has been based on an evaluation of the Apple version. A review of the IBM version has revealed identical content in the program. Users should note that the IBM version requires a double-sided PC disk drive and PC-DOS 1.1, 2.0 or 2.1. The required DOS and BASICA programs can then be transferred to the "French Achievement I" disk using the INSTALL commands listed in the documentation.

SUMMATION

The major strengths of the program include:

1. There is corrective feedback for every error the student makes.
2. The program includes a dictionary of all 600 words that are used as distractors.
3. The program covers a wide variety of vocabulary words which are quite commonly used.
4. The program has a sense of humor.

The weaknesses of the program include:

1. There is no management or authoring system.
2. Questioning techniques do not go beyond the multiple choice question format.
3. Errors do not re-appear later in that drill.
4. The documentation is inadequate. It should include a list of all the 150 sentences included in the program.

STATUS

The Apple and IBM versions of "French Achievement I: Vocabulary" have been authorized as **SUPPLEMENTARY** learning resources for grades 10 - 12.

PURCHASE INFORMATION

This product may be purchased for $49.95 US (1986) at the address provided at the beginning of this report. Lab paks consisting of the teacher's guide, one disk with backup plus nine additional disks, are available for $149.85 US (1986). Bulk purchase discounts are provided by CBS Interactive Learning with the discount dependent on the number of units bought. This product may also be available locally, check with your software dealer.

Defective disks will be replaced at no charge within 90 days of purchase. Within one year of invoice date, defective disks will be replaced (on a one-time-only basis) for a fee of $5.00. Disks damaged by users can be replaced at a cost of $15.00 per disk.

As the entire program is not loaded upon booting, a disk may be used with only one computer at a time.

THE GEOMETRIC SUPPOSER: TRIANGLES

DESCRIPTION

Title: The Geometric Supposer: Triangles
Authors: Judah Schwartz & Michal Yerushalmy
Publisher: Sunburst Communications
Source: 39 Washington Avenue, Pleasantville, NY 10570
Subject: Mathematics
Topics: Properties of triangles, construction of any type of triangle
Components: 1 disk with backup, teacher's guide (104p.), quick reference card
System Requirements: Apple II+/IIe/IIc, 64K, 1 disk drive, monitor
Other Formats Available (not evaluated): Available only in Apple format

Version: 1985
Display Language: English
Cost: $99.00 US (1986)
Tel. #: (914) 769-5030
Users: Grades 4 - 10

OBJECTIVES

The inferred objectives of this program are to provide the user with opportunities to:

1. Make conjectures about geometric theorems.
2. Make geometric constructions.
3. Compare various constructions as they relate to different triangles.

PEDAGOGICAL CONTENT DESCRIPTION

This program provides an opportunity to explore a vast array of theorems. The following functions are provided:

1. Construct a triangle (right, acute, obtuse, isosceles, equilateral, one's own) where the user specifies either the three sides, two sides and an angle, or two angles and a side of the desired triangle.
2. Draw: The user may construct segments, circles, medians, altitudes, parallels, perpendiculars, angle bisects, perpendicular bisects, midsegments and extensions respective to the constructed triangle.
3. Label: The user may label intersections, subdivide line segments, reflect portions of a figure in a line and generate a random point.
4. Erase: This option allows the user to clear a segment or a label from the screen. Once erased, these segments and labels will not appear on the screen; however they remain in memory and may be used to carry out constructions and measurements.
5. Measure: The user may measure lengths, perimeters, areas, angles, distances between points and lines, distances between lines and lines; the sums, differences, products or ratios of two lengths, perimeters, areas, angles or distances. In addition, he or she may square the measure of a length, perimeter, area, angle or distance.
6. Scale Change: Two sizes are available for each image.
7. Repeat: This option allows the user to repeat the construction just completed on a new triangle or on any of the three previous triangles.

PEDAGOGICAL CONTENT EVALUATION

This program does not instruct per se, rather it operates as a creative tool by which students can explore geometric constructions and make conjectures concerning the validity of various theorems about triangles. Content range, sequence and depth will therefore reflect the learning sequence that the teacher may design. Teachers who are comfortable with the discovery mode of learning would likely find this program very attractive.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of menu selection, submenu selection to indicate the operation desired, and alpha/numeric entry to specify angular or linear measures. The program does not offer direct questioning, feedback, or evaluation. Rather students are presented with the graphic constructions together with the raw data and are left to draw their own conclusions.

INSTRUCTIONAL FORMAT EVALUATION

This program does not offer structured content and evaluation of learning. Rather its "open ended" approach encourages students to learn through the manipulation of measurements and constructions and thus discover the laws of geometry. The program effectively repeats constructions of triangles previously placed in memory and the multiple menus provide ample opportunities for repetition and review. Teachers would, however, need to be actively involved in the learning process in order to help students understand the changes they are viewing.

Unfortunately the disk does not offer operating instructions. A preliminary tutorial showing a sample construction/manipulation would greatly aid student understanding.

TECHNICAL CHARACTERISTICS DESCRIPTION

The screen is divided into three sections: one for menu selection, one for drawing and construction, and one for measurements. Text is presented in standard size.

TECHNICAL CHARACTERISTICS EVALUATION

Graphics are simple but effective in achieving the intents of the program. Good programming has been employed in that inappropriate entries cause a beep to sound and the screen locks until the appropriate entry is received. The fact that the program loads completely upon initial booting is a strength.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The teacher documentation consists of a detailed program description complete with instructions and illustrations for each menu and submenu selection. The last nineteen pages of the manual contain specific instructions for use in a variety of classroom settings. A quick reference card describes the main menu/submenu selections and is cross-referenced to the teacher's manual where additional information may be obtained.

IMPLEMENTATIONAL SUPPORT EVALUATION

Reading and understanding the teacher documentation is a necessary prerequisite for effective use of this program, thus teachers must be prepared to do lengthy and careful planning. The full potential of the program will be realized only if students already possess a fundamental background in geometry, are initially taught how to use the program, and are then guided into learning activities which are likely to lead to the discovery of appropriate geometric concepts.

SUMMATION

This program offers endless opportunities for users to explore geometric constructions and theorems relating to triangles. Successful use of the program depends upon careful and thorough teacher preparation and instruction and active teacher intervention in the learning process. With appropriate work on the part of the teacher, this program provides a powerful tool, not available through other media, that can be used effectively in a discovery approach to learning geometric concepts.

STATUS

"The Geometric Supposer: Triangles" has been authorized as a **SUPPLEMENTARY** learning resource for grades 4 to 10.

PURCHASE INFORMATION

This product may be purchased from Sunburst Communications for $99.00 US (1986) at the address provided at the beginning of this report. Lab packs, consisting of one teacher's guide and 10 disks, may be purchased for $297.00 US (1986). This program may also be available locally, check with your software dealers.

Sunburst Communications includes a replacement warranty on all components for the life of the product. This warranty covers components that are defective, lost, stolen or damaged during normal school use. Program updates and improvements are provided at no charge if the purchaser indicates on the order form that he or she wants them.

The publisher allows this disk to be used in more than one computer at a time (see page 104 of the accompanying documentation).

THE HINKY PINKY GAME

DESCRIPTION

Title: The Hinky Pinky Game
Author: The 22nd Avenue Workshop
Publisher: Learning Well
Source: 200 South Service Road, Roslyn, NY 11577
Subject: Language Arts
Topics: Matching words with definitions
Components: 1 double-sided disk, teacher's guide (3p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer (optional)
Other Formats Available (not evaluated): Available only in Apple format

Version: 1983
Display Language: English
Cost: $39.95 US (1986)
Tel. #: (516) 621-1540
Users: Grades 4 - 6

OBJECTIVES

This program is designed to help the student enrich vocabulary development, stimulate imagination, develop context clue skills, integrate creative writing, emphasize contrastive spelling, promote syllable recognition and increase dictionary and thesaurus use.

PEDAGOGICAL CONTENT DESCRIPTION

This interactive game provides practice in enriching language skills by matching rhyming words with definitions. The program provides 180 problems taken from the rhyming lists which contain over 6400 words, nouns and verbs, arranged in 1100 categories. There are four levels of play: easy, hard, hardest and items created by the user through the authoring system. The levels of play, which are program-generated, increase in difficulty according to the number of syllables, vocabulary and constrasting spellings used. The user must determine the rhyming pairs of words that match the definitions and formulas. The definitions cover both words in the rhyming pair and the formula gives the number of syllables in each word. Hints, which may be another definition or may give more information about either word in the pair, are available. The words pairs are presented randomly within a word list.

PEDAGOGICAL CONTENT EVALUATION

This highly motivating and challenging game has sufficient range to appeal to a very broad audience. Although the first three levels increase in difficulty from one level to the next appropriately, the sequence within each level is not always easy to difficult since the questions are generated randomly. As a result, some students at the lower end of the target audience may find the questions too challenging, but this can be alleviated by using the authoring system. The final level which includes the problems developed by the student or teacher not only promotes creative thinking in the development process but also increases the range and depth of the program.

Content is current and accurate. Occasionally a definition contains an ethnic reference that may reflect some bias. Readability is generally appropriate. This type of program makes good use of the computer capabilities in educational applications and encourages the users to think and to be creative in individualizing and adding to the content through the authoring system.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction in the game portion of the program consists of: selecting from the menu, inputting two rhyming words, using various keys to get help, turning the sound off/on, searching by initials, turning the pages, and exiting the program. The students may also create their own bank of questions.

The questions are chosen randomly from a program or from the user created data bank. Feedback is consistent with correct responses receiving graphic and audio reinforcement. If one or both of the rhyming words is incorrect, the student is informed and asked to try again. If the words were correct but in the wrong order, the program reverses them to show the student the correct order. If a student has correctly guessed the words but has misspelled them, the program draws the student's attention to the misspelled word. The student can also access additional hints or help as required. The student cannot proceed to the next question until the correct answer is reached. No quantitative feedback, evaluation, or branching is provided.

INSTRUCTIONAL FORMAT EVALUATION

The student interaction in the game format is frequent, effective and enjoyable. In part of the program, such as in the philosophy, documentation, etc., the interaction is passive and merely consists of reading and page turning. It might be more effective to have most of this information in print form. The questioning techniques used in the program require the students to think creatively in both their responses and in their efforts to prepare questions for other students. The redundancy of items, particularly for those students who have done part of a level once, is a weakness; however, this can be compensated by creating problems to supplement the 180 questions in the program. The novel way in which clues are given as to the number of syllables is interesting.

The feedback is non-threatening, brief and generally appropriate but the graphics lack variety. Although the clues and hints are interesting and useful, it would be helpful to have the correct answers provided. Quantitative feedback is not provided but it would be helpful to the user. No evaluative information is provided, but the usual type of evaluation, including tests, is inappropriate for this program.

TECHNICAL CHARACTERISTICS DESCRIPTION

Text is presented in upper and lower case letters in standard size print. Color, graphics and a sound option are included in the program.

TECHNICAL CHARACTERISTICS EVALUATION

The displays using upper and lower case print are appropriate for the target audience. Color is used but is not essential. Graphics, though positive and encouraging, lack variety and are repetitive. Sound is appropriately controlled. Some students found the input response slow at times and this caused correcting and retyping. Using CONTROL N to go on to the next question becomes somewhat cumbersome. The program is easy to operate and appears to be bomb-proof.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No management system is provided in this program, but an authoring system is included. The teacher documentation which is included on the disk may be printed. The documentation introduces the program, gives information on starting the program, provides specific information on playing the game and creating new problems. A small three page fold out which briefly outlines objectives and capabilities and provides an order form is included. No user support materials are provided other than telephone numbers that can be accessed if the user has questions.

IMPLEMENTATIONAL SUPPORT EVALUATION

The authoring system is easy to use and adds flexibility and depth to the program. The inclusion of a scorekeeping function to monitor student progress would enhance this program. The documentation provided on the disk is detailed, easy to follow and provides useful information. Although this information can be printed, printers are not always available. Perhaps it would be useful to have the information, other than instructions, in print form in combination with the information on the fold out. This program should not be difficult to implement and will likely require little teacher supervision with the exception of the younger target audience who may need assistance initially.

SUMMATION

This game provides a unique, interesting and enjoyable approach to enriching language skills. It stimulates imagination and encourages creative thinking. This program makes very good use of the computer's capabilites and the inclusion of the authoring system which provides the option of creating additional problems is an important asset. Although the objectives, which are general in nature, are stated, it is very difficult to ascertain whether the objectives have in fact been met. The lack of quantitative feedback and the lack of a correct answer after all hints have been exhausted are weaknesses.

STATUS

"The Hinky Pinky Game" has been authorized as a **SUPPLEMENTARY** learning resource for grades 4 - 6.

PURCHASE INFORMATION

This product may be purchased for $39.95 US (1986) at the address listed at the beginning of this report. In addition, lab paks of one teacher's guide and 5 disks are available for $79.90 US (1986). This product may also be available locally, check with your software dealers.

Defective disks will be replaced by the publisher without charge within a 60 day warranty period. After this, defective disks will be replaced for a $10.00 (US) fee for a one year period.

HOMOPHONES GRAMMATICAUX

DESCRIPTION

Titre: Homophones grammaticaux
Auteur(s): Emmanuel Chénard et al
Éditeur: Éditions FM
Source: 1113 rue Desmoyers, Laval, Québec H7C 1Y6
Matière: Français
Sujets: Homophones grammaticaux

Version: 1984
Langue d'affichage: Français
Coût: 49,95 $ (1985)
Tél.: (514) 324-0712
Utilisateurs: 11 à 18 ans

Composantes: 1 disquette, guide du maître (45 p.), contenu des fichiers (11 p.), certificat
Matériel requis: Apple II+/IIe/IIc, 48K, 1 unité de disque, moniteur vidéo, imprimante (facultatif)
Disponibilité sur d'autres ordinateurs (pas d'évaluation): Commodore 64

NOTE

Une version bilingue est aussi disponible. Pour plus de renseignements, voyez la note à la fin du rapport.

OBJECTIFS

Ce programme est conçu pour amener l'élève à développer une autonomie orthographique dans la pratique des homophones grammaticaux.

DESCRIPTION DU CONTENU PÉDAGOGIQUE

Il y a quatre sections dans ce didacticiel: une démonstration tutoriel, des exercices pratiques sous forme de jeux, un éditeur et les résultats. Les deux premières parties s'adressent à l'utilisateur. Les deux dernières s'adressent à l'enseignant/e.

La première partie est une démonstration animée qui donne une définition générale de l'homophone. L'utilisateur est amené à écrire l'homophone qui convient pour deux des exemples d'une série.

À la deuxième partie, on retrouve le jeu qui contient douze séries homophoniques (de 2 à 6 homophones par série). Chaque série a trois exercices. Les exercices présentent un texte de huit lignes au maximum par page-écran. L'utilisateur tape l'homophone requis par le contexte. La liste d'homophones est affichée à la partie supérieure de l'écran. En tout temps il lui est possible de faire apparaître la règle (truc mnémotechnique). Quand l'utilisateur a terminé un exercice, il peut décider de poursuivre un travail sur la même paire ou la même série d'homophones dans un autre contexte. Les douze séries homophoniques sont: a, cet, dans, mes, ni, on, ou, peu, sans, se, ses, son.

La troisième partie, l'éditeur du contenu, permet à l'enseignant/e d'accéder aux fichiers, soit pour créer de nouveaux contenus, soit pour modifier les contenus existants, soit pour les effacer, soit pour les stocker sur une autre disquette. Il est aussi possible de tirer un fichier sur imprimante. De plus, cette partie fournit la possibilité de déterminer les critères d'obtention du certificat.

La quatrième section permet de voir les résultats du dernier utilisateur: résultat initial auquel s'ajoutent les points donnés en prime à la correction.

ÉVALUATION DU CONTENU PÉDAGOGIQUE

L'étendue du contenu est suffisante pour la clientèle cible et rencontre bien les objectifs prescrits. L'intensité de la pratique est adéquate car l'utilisateur a le choix de faire un, deux ou les trois contextes pour chaque série homophonique. Il est à remarquer que l'intensité de l'instruction est assez minimale; c'est dommage que la démonstration couvre seulement une partie d'une série homophonique. Comme tel, ce programme est approprié à la pratique des concepts déjà étudiés en classe.

La séquence des douze séries est satisfaisante car, soit l'utilisateur ou l'enseignant/e peut déterminer quelles séries à faire et en quel ordre.

À l'intérieur d'une série, il n'y a pas de séquence, mais ceci n'est pas une faiblesse car les objectifs de chaque série sont très spécifiques.

Le programme contient quelques erreurs grammaticales, par ex.: (série a, les résultats) "mot" au lieu de "mots", (série dans, partie 1) "le mèches" au lieu de "les mèches".

La valeur du programme est augmentée par la capacité ouverte du contenu qui permet à l'enseignant/e d'ajouter ou de modifier le contenu avec l'éditeur.

DESCRIPTION DES TYPES D'INTERVENTION PÉDAGOGIQUE

L'interaction de l'élève avec le programme comprend les étapes suivantes: entrer son nom, sélectionner les séries, tourner des pages, orthographier les bonnes réponses et tous, par des entrées normales du clavier. En tout temps il est possible de faire apparaître la règle (truc mnémotechnique) en appuyant sur " + ". Le programme requiert le bon usage des lettres majuscules et des accents. Les lettres majuscules sont activées par la touche "ESC", un levier-bascule. Les accents sont générés à travers les touches numériques, " + " et " / ". Un écran-aide, dont l'accès est " = " indique la position de tous les caractères accentués.

Les paragraphes sont dans un ordre prédéterminé, mais l'utilisateur peut choisir l'ordre de présentation. L'ordre des phrases dans les paragraphes reste toujours le même. L'utilisateur peut alors corriger ses réponses immédiatement ou après avoir fini le paragraphe. Les erreurs sont représentées pour la correction.

La rétroaction positive comprend le clignotement répétitif de la réponse juste et un renforcement sonore. Les réponses erronées sont effacées et notées par un bruit. Les renforcements sonores sont facultatifs. Des points en prime sont ajoutés pour des corrections. L'ordinateur affiche finalement l'orthographe correct après la deuxième vérification. Les résultats de réussites et d'erreurs sont affichés immédiatement dans les coins supérieurs gauches et droits de l'écran. La rétroaction quantitative est présentée à la fin de chaque série, indiquant: le nom de l'utilisateur, le fichier travaillé, le nombre de réussites et d'erreurs, le pourcentage initial, les points en prime pour les corrections et le pourcentage final.

La vitesse, la séquence et le montant sont tous contrôlés par l'utilisateur.

ÉVALUATION DES TYPES D'INTERVENTION PÉDAGOGIQUE

L'interaction avec l'ordinateur pour les exercices pratiques est satisfaisante. La disponibilité des écrans du truc mnémotechnique et du lexique des touches de fonctions sont des forces du programme. L'interaction est conçue pour le Apple II+, et est alors inappropriée aux ordinateurs IIe et IIc. Par exemple, la touche "caps lock" doit être abaissée durant tout le programme, mais il n'y a pas d'instructions pour nous l'indiquer au début de la démonstration. Les lettres majuscules sont activées par "ESC" au lieu de "shift" et alors, les élèves doivent se souvenir aussi de les désactiver en appuyant encore une fois sur "ESC". L'emploi de " + " et " = " est un peu difficile à retenir.

Toutes les questions sont du même type: écrire le mot qui manque en choisissant le bon mot d'une liste de 2 à 6 mots homophoniques. Ce type de questions rencontre bien quand même les objectifs du programme. Ni les phrases, ni les paragraphes ne sont présentés au hasard. Ceci n'est pas un gros désavantage car l'enseignant/e peut faire des modifications aux contenus ou créer de nouveaux contenus.

La possibilité de faire des corrections avant la vérification par l'ordinateur, la représentation des erreurs, la modification des critères de succès par l'enseignant/e et la nécessité de l'emploi juste des majuscules et des accents sont tous des forces du programme.

Les renforcements sonores, étant facultatifs, sont bien pour l'utilisation du programme dans une salle de classe. Cependant, il est à remarquer que la rétroaction visuelle n'est pas trop efficace sans les renforcements sonores. Des indications, autres que le clignotement et l'effacement, pourraient être considérées. La rétroaction quantitative est informative et le tirage des résultats et du certificat sur imprimante est avantageux. On devrait donner plus d'aide pour la rétroaction négative car elle est limitée à la présentation du mot juste.

DESCRIPTION DES CARACTÉRISTIQUES TECHNIQUES

Ce programme utilise des caractères de grandeur normale; les minuscules et les majuscules sont activées avec "ESC". Les touches numériques sont reprogrammées pour offrir les caractères français accentués, nécessitant l'emploi supplémentaire de la touche "shift" seulement pour deux des caractères. Le son est utilisé dans la démonstration aussi bien que dans les exercices, mais ici, il est facultatif.

Des effets spéciaux tels que le clignotement, la mise en évidence inverse et l'écran divisé sont employés.

Une disquette supplémentaire est utilisée pour stocker des fichiers.

ÉVALUATION DES CARACTÉRISTIQUES TECHNIQUES

L'affichage à l'écran est bien conçu et approprié à la clientèle cible. Les effets spéciaux sont utilisés efficacement pour mettre en valeur. C'est excellent de pouvoir obtenir les caractères accentués dans une action. Le son optionnel est très bien pour l'emploi du programme dans la salle de classe.

L'animation, le son et la présentation d'une lettre à la fois dans la démonstration sont chouettes, mais ils ont tendance à distraire. L'instruction qui indique la nécessité d'abaisser la touche "caps lock" est absente dans la démonstration.

L'utilisateur peut se servir de ce programme facilement et sans l'aide de personne. Une situation agaçante se produit quand, par force d'habitude, l'utilisateur appuie sur la touche "return" après avoir fait sa sélection sur l'option du son. En appuyant sur "return", l'utilisateur se retrouve automatiquement dans la première série homophonique, sans pouvoir regarder le menu. Une fois dans cette série, il n'y a pas de sortie sans faire au moins un des trois paragraphes ou d'amorcer de nouveau le programme.

DESCRIPTION DU MATÉRIEL D'APPUI

Il n'y a pas de système de gestion, mais les résultats du dernier utilisateur sont enregistrés sur la disquette.

Le programme contient un éditeur qui est réservé pour l'enseignant/e et auquel on accède par un mot de passe (qui peut être changé). Cette fonction permet à l'enseignant/e de modifier des fichiers, d'en créer ou d'en annuler ou de changer le pourcentage requis pour l'obtention du certificat. Les fichiers peuvent être stockés sur une disquette supplémentaire, mais ils doivent être retransférés à la disquette maîtresse afin de pouvoir les utiliser.

Un guide de 45 pages est inclus. Il suggère des activités pour faire avant et après l'emploi du programme, aussi bien que des activités d'intégration. La documentation explique le raisonnement aussi bien que la création de nouveaux fichiers.

Une brochure de 11 pages présente le contenu intégral des fichiers et met en main les douze paires ou séries d'homophones, les douze trucs mnémotechniques (règles) et les trente-six contextes qui sont employés pour les exercices pratiques.

ÉVALUATION DU MATÉRIEL D'APPUI

La documentation pour l'enseignant/e est facile à comprendre et à utiliser. La fonction éditrice donne une capacité renouvelable et permet d'adapter le contenu à tous niveaux de classe.

Le programme enregistre seulement les résultats du dernier utilisateur mais ceci n'est pas trop utile comme tel, pour l'enseignant/e. Le manque d'un système de gestion est comblé un peu, par le fait qu'on peut imprimer les résultats de chaque élève.

Il serait avantageux de faire une étude des homophones contenus dans la brochure préalable au travail sur l'ordinateur. Le programme est facile d'utilisation et nécessite un minimum de surveillance par l'enseignant/e. Cependant, du temps supplémentaire est demandé à l'enseignant/e afin de créer des nouveaux contenus de fichier adaptables à sa classe, si le programme est destiné à être utilisé à son potentiel à travers l'éditeur. Ceci se complique encore, par la possibilité de perdre son texte, par l'emploi de trop de caractères accentués. Dans ce cas, un message indiquant une quantité illégale d'erreurs: é, f, û et le programme échoue.

SOMMAIRE

Ce programme fournit des exercices pratiques suffisants sur l'emploi des homophones. Le développement du contenu, la représentation des erreurs, la nécessité du bon emploi des accents et des majuscules et la fonction éditrice sont tous des atouts du programme. Parmi les faiblesses sont la technique d'enseignement, l'enregistrement inadéquat des résultats et quelques erreurs de programmation.

VERSION - FRANÇAIS LANGUE SECONDE

Ce rapport est basé sur une évaluation de la version française. En faisant une revue de la version bilingue, les seules différences qui ont été trouvées sont:

1. La version bilingue présente toutes les directives en anglais.
2. La version bilingue présente les résultats en anglais.

STATUT

Le programme "Homophones grammaticaux" est reconnu comme ressource pédagogique de statut "SUPPLÉMENTAIRE" pour les élèves de 5e année francophone, 6e année immersion, aussi bien que pour ceux de 11e et 12e année en français langue seconde pour les programmes de 6 ans et 9 ans.

ACHAT

Ce programme est disponible des Éditions FM, à l'adresse indiquée ci-haut, au coût de 49,95 $ (1986). Un prix au rabais peut être obtenu pour un achat excédant 9 copies. Des disquettes de rechange peuvent être achetées pour 10,00 $ chacune.

Les disquettes fautives sous garantie seront remplacées sans frais, dans les 90 jours suivant l'achat. Par la suite, elles seront remplacées pour 7,00 $.

À cause de l'interaction fréquente avec le programme, une disquette ne peut amorcer plus d'un ordinateur à la fois.

HOW CAN I FIND IT

DESCRIPTION

Title: How Can I Find It If I Don't Know What I'm Looking For?
Author: Ann Lathrop
Publisher: Sunburst Communications
Source: 39 Washington Avenue, Pleasantville, NY 10570-9971
Subject: Library Skills
Topics: Use of reference books, use of computers for information retrieval
Components: 1 disk with backup, teacher's guide (40p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer (optional)
Other Formats Available (not evaluated): Available only in Apple format

Version: 1985
Display Language: English
Cost: $59.00 US (1986)
Tel. #: (914) 769-5030
Users: Grades 4 - 6

OBJECTIVES

The stated objectives of this program are: to encourage students to explore more fully the resources of their own library or media center, to help students find reference books that have the specific information they need and to provide individualized access to the variety of interesting reference books available.

PEDAGOGICAL CONTENT DESCRIPTION

This program is intended to be used as a tool to encourage students to explore and become more independent in finding a wide variety of reference books in their library or media center. Potential teacher users should note that this program does not provide instruction or drill in the use of these resources; rather it serves as a computer resource to help students locate those reference books most likely to serve their current purpose. As such, it is a computerized retrieval program to be used after the students have already been introduced to the use of the card catalog and various reference materials. The database contains reference books most frequently found in libraries or media centers for grades four to nine.

The program consists of three parts: 1) Getting started with this program, 2) Choosing the reference book you need today, and 3) Kinds of reference books. The first option gives students instructions on the use of the program. The second section provides a list of sixteen subject categories which are available in the library or media center such as history, art, geography, sports, etc. The student picks the subject most closely related to the topic they are searching; then, subjects may be narrowed by further questions until a list of specific book titles is generated. This list can be copied manually or printed. The third part gives the student brief descriptions of the various types of reference books and a list of reference books of that type available. The ten types of books included in this section are the encyclopedia, dictionary, almanac, atlas, geographical dictionary, biographical dictionary, index, handbook, directory and yearbook. Two blank screens that can be developed by the teacher for additional types of reference materials are available in the program.

PEDAGOGICAL CONTENT EVALUATION

Through the use of the program as a tool, the student is introduced to the concept of computerized information retrieval in an effective way. The definitions used in the program are succinct and the instructional explanations are explicit.

The program could be an effective tool within the library for students wishing information on reference books. As such, the use of a computer program is appropriate, would likely be motivational for many students and would free up the librarian for more complex tasks. The availability of the print option increases its potential effectiveness. Students who have a fundamental grasp of the process of information retrieval skills within a library environment should be able to use this program with little difficulty. However, with the reference books used within the program, students at the lower end of the target audience may have some difficulty.

The content is accurate but is intended for an American audience. As such, 6 or the 51 data screens would have to be completely edited for a Canadian audience. These are Bio Dict: American History, Life in the U.S., About the U.S., About Your State, U.S. History and Government & Politics. Other screens would have to be partly changed to include Canadian source information. The edit function does allow a teacher or librarian to change the content to reflect the reference collections available in their own library or media center. However, as Canadian teachers will not only have to edit to reflect their own resources but will also have to edit to relect Canadian content, this will be a lengthy process.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of menu selections, using the arrow keys to move the pointer on the screen, using the ESC key to return to the last menu, using the RETURN key to make a selection and for page turning, using the "M" key to go back to the main menu, using the "P" key to print the screen and using the CTRL E keys to exit the program. Students are prompted so they do not need to memorize the keys. In some subject categories the student is asked to input specific responses.

Questions are used to help define a topic and guide students to a variety of reference books which may contain the information they need. Branching is provided according to the topics the student chooses. Through the use of the editor, the teacher or librarian may customize the program to correspond to the reference books available to the students in a specific setting.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate for the intents of this program. The program is well-organized and provides clear and concise directions for student interaction. The student is provided with prompts at the bottom of each screen to assist in making interaction with the program easy. The branching allows the student to move quickly and effectively from one section to another in the program.

TECHNICAL CHARACTERISTICS DESCRIPTION

The text is larger than normal and uses both upper and lower case letters. Prompts for use of the program are on the screen. Data screens contain eight lines and may have up to forty characters of text on each line.

TECHNICAL CHARACTERISTICS EVALUATION

Displays are well-designed with text that is well spaced and large enough to be read easily. The program is easy to use and appears to be boab-proof under normal use.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

Students should be introduced to the card catalog and a variety of reference books prior to using this program. The teacher documentation contains an introduction to the program, program skills/objectives, a description of the program, suggested student activities and a field test report. The teacher's documentation contains a reproducible student direction sheet, reference search questions and a crossword puzzle

The teacher can access an editor to customize the program by adding or deleting titles, adding call numbers or even adding additional screens. Instructions on how to use the editor are included in the documentation.

The publisher grants permission to use the diskette in multiple machines.

IMPLEMENTATIONAL SUPPORT EVALUATION

The inclusion of the edit function is a major strength in this program in that it allows the program to be modified to meet the needs of the users. It is suggested that it will take from 2 to 6 hours to edit the program to reflect the resources in a particular library. Teachers or librarians who have little or no computer background may find the edit function a bit overwhelming at first, but if the documentation is followed carefully this should not be a major problem. This program will need even further modifications, as noted earlier, to use it effectively with Alberta/Canadian students. As such, extensive time will be needed.

The print option is a good feature as it allows for efficient use of the computer.

The documentation is well organized, clearly written and provides useful suggested student activities. The student activities appear to be functional and would complement the program. The program is easy to use and the fact that the same disk can be used with several machines is an advantage in a school setting.

SUMMATION

This is a well-designed program which makes effective use of the computer medium to provide practice in information retrieval. The documentation is complete and written from an educational point of view with some good suggestions for student activities. The editor adds strength to the program by providing an opportunity to modify the program for a specific library or media center; however, time is required to make the modifications. Since this program is intended for an American audience, it will need even more modification for effective use with Alberta students. As such, prospective users Should be prepared to spend an entire day customizing the program to their needs. This time may later prove to be worthwhile as the librarian's time would likely be freed from answering routine questions on reference materials.

STATUS

"How Can I Find It If I Don't Know What I'm Looking For?" has been authorized as a SUPPLEMENTARY learning resource for grades 4 - 6.

PURCHASE INFORMATION

This product may be purchased from Sunburst Communications at the address provided at the beginning of this report. The price is $59.00 US (1986) for a single package consisting of one disk with a backup and teacher's guide. It is also available in a lab pack consisting of one teacher's guide and 10 disks for $177.00 US (1986). A free 30-day trial period is provided by the publisher. This product may be available locally, check with your software dealer.

Sunburst Communications includes a replacement warranty on all components for the life of the product. This warranty covers components that are defective, lost, stolen or damaged during normal school use. Also, updates and improvements are provided at no charge if the purchaser indicates on the order form that he or she wants them.

The publisher grants permission to use the disk in more than one machine at a time.

HOW TO IDENTIFY THE MAIN IDEA

DESCRIPTION

Title: How to Identify the Main Idea
Series: Learning Strategies
Author: None Cited
Publisher: Science Research Associates (Canada) Ltd
Source: 707 Gordon Baker Road, Willowdale, Ontario M2H 2S6
Subjects: Language Arts
Topics: Main idea stated and implied, supporting details, application of strategy

Version: 1983
Display Language: English
Cost: $270.00 (1986)
Tel. #: (416) 497-7707
Users: Grades 5 - 9

Components: 1 teacher disk, 1 subject disk, teacher's guide (32p.), 20 student worktexts (32p.), start-up chart
System Requirements: Apple II+/IIe/IIc 48K, 1 disk drive, monitor, printer (optional)
Other Formats Available (not evaluated): Available only in Apple format

OBJECTIVES

This program is designed to develop a strategy for identifying the main idea in paragraphs using subject, main idea (stated and implied), and supporting details, and applying this strategy to general reading and to subject area reading.

PEDAGOGICAL CONTENT DESCRIPTION

The program deals with developing a strategy to identify the main idea in a paragraph. Students begin the program with a pre-test on paper and then proceed to the computer program. The computer program consists of five components. The first two parts, Introduction Parts 1 and 2, are tutorials which not only introduce the student to a strategy for identifying the subject, main idea and supporting details in paragraphs but also provide practice exercises. The Introductions give an explanation of what the subject of the paragraph is, what the main idea is and how to identify it in different locations within a paragraph. Students are also given an explanation of the purpose of the supporting details of a paragraph and are shown how to recognize supporting details with signal words. The students must complete the Introductions Parts 1 and 2 before they are permitted to continue with the subject exercises. The next three parts provide extensive reinforcement of the strategy with eighteen practice paragraphs in each of the areas of literature, science and social studies. The students read the paragraphs (in the student text) and answer the related questions on the computer. Three levels of difficulty (easy, intermediate and difficult) are presented for each area. Supplementary exercises are provided in the student workbook.

PEDAGOGICAL CONTENT EVALUATION

The range and sequence of content are appropriate to the target audience and meet the intents of the program. Depth of content is generally good with a strong instructional component. The application of a strategy for finding the main idea in three subject areas is beneficial. The sequence from easy to difficult is effective.

If a student does not complete all of the problems in the Introduction, upon return to the Introduction he or she will have to repeat those problems even if they were correct. Although review can assist in the learning process; this may not be effective use of a student's time, especially for an able student. Fortunately, all subject exercises allow the student to begin at the next problem following the one completed. The Introductions with their constant review will be beneficial for the slower learner but may become somewhat boring for an able student.

The content is accurate, unbiased and the general readability is appropriate for the intended users. The total program is an interesting combination of computer components and textual materials but may not be highly motivating to all students. Some may question the appropriateness of using the computer in this way.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of menu selection, name entry, answer inputs and using the SPACE BAR or the RETURN key for page turning. The ESC key is used when a student wishes to peruse his or her score or leave the program.

The questions are presented in a preprogrammed order. Textual feedback is provided for all responses with a correct response receiving a congratulatory comment and an incorrect response resulting in a comment such as "incorrect" or "not correct". The student is also told why the answer is not correct. In the tutorial, the answer is given while in the exercises the student is given an additional clue, a review statement of strategy, and then the answer is given. Quantitative feedback is available to the student during the session or at the end of a session. It indicates the number of problems completed, the number of correct subjects chosen for each paragraph, the number of correct main idea sentences chosen, the number of correct supporting sentences picked and the total number correct.

The teacher is provided with a printed test which is a pre-test and can also be used as a post-test. Students whose cumulative score drops below 65% in identifying the main idea are referred to the additional practice exercises in the student worktext.

INSTRUCTIONAL FORMAT EVALUATION

The student interaction is generally satisfactory; however, there are times in the Introductions Parts 1 and 2 when there is too much page turning. The transition from one instructional page to another may be too slow for brighter students. Also, the program doesn't always allow a student to change an answer before it is accepted by the program.

The questioning techniques are adequate but randomizing the questions would be beneficial. The feedback is appropriate and the assistance provided with the negative feedback is helpful. Quantitative feedback is suitable and is readily available to the students and teachers.

The test is appropriate for a pre- and post-test and is useful for the intended audience. The criteria of 65% is set by the program but it would be useful for the teacher to be able to control this. It would also be beneficial for the teacher to have more control over sequence; not all students will require the introduction.

TECHNICAL CHARACTERISTICS DESCRIPTION

Text and numbers are presented in standard size with both upper and lower case letters being used. Inverse print is used extensively to highlight main points. No sound, color or graphics (other than a chart to show the main parts of a paragraph) are used.

TECHNICAL CHARACTERISTICS EVALUATION

The displays are generally well designed with appropriate font and character size. Occasionally some screens are somewhat cluttered. At times the text screens move too slowly for the quicker student. The program is slow in loading. The highlighting of important points is very effective. The program is easy to use and the user can exit easily. A weakness is noted in Introduction Part 1 in that mistakes cannot be corrected before they are accepted by the program. The program appears to be reliable and bomb-proof under normal conditions. The use of color, sound or graphics could perhaps make the feedback more interesting.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No special entry competencies are required for this program.

The management system with a capacity of scores for fifty students has the following functions: (1) display/print class list, (2) display/print class progress, (3) display/print student progress, (4) delete all students, and (5) delete one student.

The teacher documentation includes an introduction and chart of the learning strategies, a description of the objectives, rationale and components of the module, a student activity flow chart, information on the operation of the management system, a suggested work schedule with suggested related activities, a test with answer key for a pre- and post-test, a class record of progress and an annotated version of the student worktext.

A student worktext which is an integral part of the program is divided into three main parts. Part 1 provides preliminary information and exercises to teach and reinforce subjects, main ideas and supporting details. Part 2 includes the paragraphs to be read and used in conjunction with the computer in the science, social studies and literature exercises. Part 3 provides student record of progress sheets, one for the computer and one for the worktext.

IMPLEMENTATIONAL SUPPORT EVALUATION

The functions of the management system all work as described and are easy to implement. The capacity of fifty students will likely be adequate for most situations. It is unfortunate that the names are not alphabetized in this system.

The teacher documentation is very good and includes all the information needed to use the program in a classroom. Enough ideas are provided to enable the teacher to use his or her creativity with the package as well. The user support materials are appropriate and effective.

The program is relatively easy to implement in the classroom with proper planning. The switching back and forth from text to computer may cause a some initial inconvenience, but it should not be a major concern. The program can be used by teachers with minimum computer competency and requires only minimal student supervision. One analyst felt that the program may be too time consuming in view of the limited objectives and the fact that only one student is able to use the program at a time.

SUMMATION

The content, instructional format and technical quality are generally good. The program is easy to use with very good documentation being provided. The combination of a worktext and a computer is interesting and utilizes both media effectively; however, not all students were highly motivated by the program.

Some parts of the Introductions are weak in that there is too much page turning and not enough interaction. The teacher should have more control in selecting the portions required in order not to bore the more able students with unnecessary repetition. The cost of implementing this program in a school may be a concern unless the program is used with one student at the time. Otherwise, the cost of added disks and worktexts will be an important factor.

STATUS

"How to Identify the Main Idea" has been authorized as a **SUPPLEMENTARY** learning resource for grades 5 to 9.

PURCHASE INFORMATION

This product may be purchased for $270.00 (1986) from the address provided at the beginning of this report. Note that the price includes 20 student worktexts. Additional texts may be purchased in packs of 10.

Defective disks will be replaced without charge within a 90 day warranty period. Subsequently, disks which become inoperable through normal use may be replaced for $40.00. No time limit is given for this warranty.

Due to frequent disk interaction, these disks may be used with only one computer at a time.

L'ÉCRIVAIN PUBLIC DE LUXE

DESCRIPTION

Titre: L'Écrivain public de luxe
Auteur(s): Marc Lafontaine et Roger Des Roches
Éditeur: Logidisque Inc.
Source: C.P. 485, Succ. Place d'Armes, Montréal, Québec H2Y 3H3
Matières: Sciences commerciales, Français
Sujets: Traitement de texte
Version: 1984
Langue d'affichage: Français
Coût: 84,95 $ (1986)
Tél.: (514) 842-9551
Utilisateurs: 5e année et +

Composantes: 1 disquette enregistrée des deux côtés, 1 manuel de référence (127 p.), 1 ajout des améliorations (13 p.), auto-collants pour le clavier

Matériel requis: Apple II+/IIe/IIc, 1 unité de disque (2 facultatives), moniteur, imprimante, 1 puce de circuit intégré française (ROM français) pour emploi avec l'affichage de 80 colonnes (ou clavier bilingue)

Disponibilité sur d'autres ordinateurs (pas d'évaluation): Commodore 64

OBJECTIFS

Ce traitement de texte est conçu pour aider à produire rapidement un travail d'édition et d'impression impeccable.

NOTE

Cette disquette contient deux versions du même programme de traitement de texte. Le programme sur le côté A de la disquette requiert la puce de circuit intégré française (ROM français) afin de générer les caractères français à l'écran et sur la page imprimée. L'écran affiche un texte d'environ 80 colonnes.

La version sur le côté B de la disquette est programmée pour générer tous les caractères français. Alors, ils apparaissent tous à l'écran et sur la page imprimée, sans qu'on ait besoin d'une puce de circuit intégré française (ROM français) ou d'un clavier bilingue. Avec cette version, l'affichage à l'écran est de 40 colonnes seulement.

DESCRIPTION DU MODE D'ÉDITION

Une fois dans le mode "écrire", l'utilisateur a accès à un maximum de 20,800 caractères libres. Le déplacement du curseur se fait à l'aide des flèches aussi bien que des touches de contrôle et des commandes pour le déplacer d'une page-écran vers le haut ou vers le bas, ou directement au début ou à la fin du document. Un mot ou une chaîne de mots s'efface en tenant enfoncée la touche "delete" jusqu'à ce que la chaîne de caractères soit effacée. Un son accompagne ce qui est détruit en tenant cette touche enfoncée. Il y a une fonction qui permet de déplacer un bloc de texte d'un endroit à un autre, à l'intérieur d'un même texte. La longueur du texte à déplacer dans une même opération est limitée à 255 caractères, qui sont restitués dans l'ordre inverse, avec CTRL - Q.

L'utilisateur peut faire des insertions dans son texte en plaçant le curseur au bon endroit, et ensuite en dactylographiant le texte désiré. Le texte suivant est repoussé. De plus, l'utilisateur peut récrire par-dessus un texte existant avec la commande CTRL - R (commande levier-bascule). Les fonctions "rechercher" et "remplacer" sont présentes. Des écrans-aides affichent un résumé des commandes et des touches de contrôle. Tous les menus à l'écran sont sous forme de menus-fenêtres qui se superposent les uns aux autres pour guider l'utilisateur.

ÉVALUATION DU MODE D'ÉDITION

Le processus de création d'un document est assez simple et facile d'apprentissage. Le curseur se déplace avec aise, sauf avec le déplacement par ligne, car après la quinzième ligne, c'est le texte qui se déplace par ligne, ce qui résulte en un effet de vague. Le saut par page-écran aide à surmonter cette difficulté. Les fonctions de "rechercher" et "remplacer" sont efficaces.

Insérer, récrire et supprimer une partie de texte est facilement accompli bien que la suppression doive s'effectuer mot par mot. Le déplacement d'un bloc de texte est limité. Même si la zone tampon est adéquate avec une capacité de 255 caractères, de longs passages nécessiteront que le déplacement se fasse en plusieurs parties. Ceci peut causer de sérieux problèmes car il n'y a aucun avertissement quand la zone tampon est remplie. Il est alors facile de perdre une partie de texte en effaçant plus que la limite de la zone tampon. Il devrait y avoir aussi une façon de copier un texte et aussi de pouvoir le déplacer à un autre endroit dans le document. Comme tel, ceci peut s'accomplir seulement à travers un processus compliqué d'enregistrement et de fusionnement de fichiers.

Les commandes sont faciles à retenir car elles sont plutôt mnémotechniques; par ex.: !mg pour la marge gauche, CTRL - B suivi de 6 pour des caractères gras, etc. Des écrans-aides qui sont faciles d'accès, prêtent secours au débutant. Les messages indiquant une mauvaise manoeuvre ont tendance à être très généraux (par ex.: "erreur entrée/sortie" si la disquette est initialisée avec PRODOS au lieu du D.O.S. 3.3). Parfois, il n'y a aucun message. Ceci peut être très embêtant quand le programme rejette une entrée, mais c'est à l'utilisateur d'en trouver la raison.

DESCRIPTION DE LA GESTION DE FICHIERS

Un document peut être préservé en faisant les sélections appropriées de trois menus, en conservant le même titre, ou en le changeant. Le nom d'un fichier peut compter jusqu'à 30 caractères dont les premiers 23 apparaîtront à l'écran. Reprendre un texte se fait aussi par des choix de menus. Un fichier entier ou un fichier partiel peut être fusionné, pourvu qu'il y ait suffisamment de caractères libres pour accommoder le texte à déplacer. Une disquette de données peut être copiée en reprenant chaque fichier individuellement et en le préservant sur une autre disquette de données. Un fichier peut être supprimé, mais une confirmation est nécessaire afin de vérifier que le processus a été bien accompli. De plus, "l'Écrivain public de luxe" offre une sous-fonction qui permet à l'utilisateur de verrouiller un texte afin d'empêcher de le supprimer accidentellement.

Le programme n'offre aucune sécurité sous forme de mot de passe. À date, il ne peut être fusionné avec aucun autre logiciel.

ÉVALUATION DE LA GESTION DE FICHIERS

Le processus qui permet de préserver ou de supprimer un texte est efficace et facile d'apprentissage. Une vérification du répertoire permet à l'utilisateur de confirmer si l'opération demandée est en fait accomplie. Le fait qu'un fichier doit être repris avant de le supprimer est un inconvénient. Un fichier écrit et préservé avec l'une des versions peut être édité aussi bien avec l'autre version du programme. Ce serait certainement avantageux si le programme pouvait être fusionné avec d'autres. L'absence de sécurité sous forme de mot de passe n'est pas sérieux.

DESCRIPTION DE LA DISPOSITION DE L'IMPRESSION

Les paramètres d'impression pour les marges, l'interligne, la pagination, la justification, etc. peuvent être modifiés par l'utilisateur. Avec des commandes imbriquées, l'élève peut créer un document avec des marges variées. La règle des tabulateurs permet de modifier les taquets de tabulation. Des retraits de gauche et de droite sont acceptés. Un document peut être centré entre les marges seulement, par une commande imbriquée. "L'Écrivain public de luxe" permet un interligne simple, un interligne et demi ou double. La justification à gauche, à droite, au centre et en pavé est disponible. La pagination est automatique. Un titre au haut de la page ou en bas de page peut être imprimé. Si le cadrage du texte est immobilisé, le programme suivra les règles de syllabation pour diviser les mots.

"L'Écrivain public de luxe" permet de simuler à l'écran la page imprimée. L'affichage à l'écran de la simulation reproduira de près la page imprimée, cependant, les commandes imbriquées et les accents n'y sont pas. Dans le mode "écrire", la version sur le côté A de la disquette montre les accents nécessaires mais les commandes apparaissent sous forme imbriquée. La version sur le côté B affiche l'écriture en suivant toutes les commandes imbriquées. De plus, le programme prévoit la fonction du "spool" aussi bien que la pause et l'arrêt de l'impression. Les indices inférieurs et supérieurs sont aussi acceptés par des commandes imbriquées d'impression.

ÉVALUATION DE LA DISPOSITION DE L'IMPRESSION

Les paramètres d'impression peuvent facilement être changés et les nouvelles valeurs enregistrées. La règle de tabulation est visible seulement à travers un menu et disparaît aussitôt que l'utilisateur retourne au mode "écrire". Les possibilités de tabulation sont plus que suffisantes car le programme peut accepter des tabulations au-delà du 400e caractère. Le centrage est limité entre les marges; rien n'est prévu pour un alignement décimal ou un alignement en plusieurs colonnes.

Même si la documentation indique qu'il est possible de mettre des accents sur les lettres majuscules, c'est compliqué et cela s'accomplit en cinq étapes. De plus, l'accent est intégré dans la lettre majuscule, est très difficile à détecter, et ne vaut pas la peine qu'on l'imprime. Les choix d'impression sont bons mais les explications dans la documentation sont faibles. L'enseignant/e devrait être préparé/e à rencontrer quelques difficultés quant à la configuration de l'imprimante pour générer tous les caractères spéciaux et les fontes de caractères qui sont disponibles avec ce programme.

C'est dommage que la version sur le côté B de la disquette, celle qui ne requiert pas de puce de circuit intégré française, soit restreinte à un affichage de 40 colonnes.

DESCRIPTION DU MATÉRIEL D'APPUI

Le manuel de référence inclut une table des matières; une description des termes et des fonctions; un résumé des caractères spéciaux, des touches de contrôle et des commandes; et un schéma du clavier avec les caractères français. Les informations concernant les révisions sont contenues dans une partie de 13 pages, insérée au début de la documentation. Elle fait aussi référence aux pages dans la vieille partie de la documentation. Le manuel de référence offre deux exemples avec lesquels l'utilisateur peut expérimenter. Ces deux exemples couvrent les bases pour écrire et éditer.

ÉVALUATION DU MATÉRIEL D'APPUI

Quoique la documentation couvre toutes les caractéristiques du programme, des exemples tutoriels seraient très utiles. Les deux exercices pratiques sont inadéquats. La clarté du manuel serait améliorée avec plus d'explications accompagnées d'illustrations. Quoique la documentation comprend un répertoire détaillé, l'inclusion d'une section avec des solutions aux difficultés qui sont les plus fréquemment rencontrées et une carte de références seraient très avantageuse. Comme telle, la documentation nécessite qu'un utilisateur fasse référence aux deux parties de la documentation, la nouvelle et la vieille, ce qui devient frustrant.

ÉVALUATION DE L'ACCESSIBILITÉ

Les processus du programme sont contrôlés par des menus-fenêtres, ce qui rend le programme facile d'utilisation.

Il est à noter que ce programme est plus compliqué à utiliser avec un ordinateur Apple II+, à cause de l'absence des flèches de haut et de bas, de la touche "delete", et des caractères minuscules. Ces fonctions sont accommodées par des combinaisons de touches.

SOMMAIRE

Ce programme fournit suffisamment de puissance afin de s'adapter aux besoins d'un élève au niveau élémentaire et intermédiaire, aussi bien que pour la plupart des besoins au niveau secondaire (sauf quelques applications en sciences commerciales). D'autres points forts du programme sont: une version avec une programmation qui peut générer les caractères français, sans puce de circuit intégré française, ni clavier bilingue; des commandes faciles à retenir; des menus-fenêtres et des écrans-aides qui facilitent l'utilisation; et des capacités qui rendent efficaces la création et l'édition d'un texte.

Le fait de ne pas pouvoir supprimer tout un paragraphe dans une seule manoeuvre; l'absence d'un préavis quand la zone tampon est remplie; être limité à un affichage de 40 colonnes sans clavier bilingue ou la puce de circuit intégré française et l'absence de fonction pour copier un texte sont les grandes faiblesses du programme. D'autres faiblesses, moins importantes, sont: le programme ne peut être fusionné avec aucun autre logiciel (par ex.: une base de données, un tableur, un dictionnaire correcteur), un manuel qui est inadéquat pour la nouvelle version et des messages qui manquent de clarté pour les mauvaises manoeuvres.

Pour récapituler, même si "L'Écrivain public de luxe" manque d'habiletés dans la production des rapports, il est un programme fonctionnel et facile d'apprentisage.

STATUT

"L'Écrivain public de luxe" est reconnu comme ressource pédagogique de statut **"RECOMMANDÉ"**.

ACHAT

Les écoles de l'Alberta peuvent acheter cet ensemble du "Learning Resources Distributing Centre" pour environ 52,00 $.

À cause de l'interaction fréquente avec le programme, une disquette ne peut amorcer plus d'un ordinateur à la fois.

Les caractères français devraient être disponibles quand le matériel permet leur génération. Cependant, le programme n'a pas été essayé sur toutes les configurations de matériel possibles. Les utilisateurs éventuels devraient donc essayer le programme avec leur ordinateur "et" leur imprimante avant l'achat!

LOGIC BUILDERS

DESCRIPTION

Title: Logic Builders
Author: Methods & Solutions Inc
Publisher: Scholastic Ltd
Source: 123 Newkirk Road, Richmond Hill, Ontario L4C 3G5
Subject: Problem Solving
Topics: Use of problem solving & planning skills to help spiders construct a web
Version: 1984
Display Language: English
Cost: $68.95 (1986)
Tel. #: (416) 883-5300
Users: Grade 2-6
Components: 1 disk with backup, teacher's guide (7p.), user's guide (15p.), reference card
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, AppleMouse or joystick (optional)
Other Formats Available (not evaluated): Commodore 64

OBJECTIVES

By playing "Logic Builders" games, students recognize, duplicate and remember increasingly complex patterns. In doing so they sharpen their visual discrimination, planning and memory skills.

PEDAGOGICAL CONTENT DESCRIPTION

In this program, students team up with five friendly spiders in one of three games:

1. DRAW A WEB: Students direct the spiders to draw a web design using any five of a possible thirty five shapes. Designs can be saved and used for subsequent student matching challenges.
2. MATCH A WEB: A master web design appears on the right side of the screen; students direct the spiders on the left side to build an exact copy of the master web in as few moves as possible.
3. RECALL A WEB: Racing against the clock, students are challenged to duplicate a master web from memory. Peeks are allowed but are costly.

Each game offers a demonstration mode. The user may choose from three types of spiders (simple, tricky, or extra tricky) and four type of webs (simple, medium, complex or self-produced). Tricky spiders may build more than one web at a time (e.g. 2 or 3). Extra tricky spiders have their own unique pattern (changed on each web) of following instructions (e.g. producing varying numbers of webs in a pattern such as 1 web, 3 webs, 2 webs, 1, 3, 2 etc. on each subsequent move). By identifying the patterns and by using this knowledge in the building process, students may improve their scores. Points are awarded on elapsed time as well as on the number of moves taken and the object is to be promoted to supervisor, manager, director, boss or Big Boss.

PEDAGOGICAL CONTENT EVALUATION

The array of playing options results in good range and depth for the target audience. Multiple sequences can be followed by changing the difficulty of the web and/or trickiness of the spiders. Indeed, in "Draw Your Own" students may have to guard against drawing webs that are too complex for other students to reproduce. This allows the program to be used repeatedly without loss of motivation at a wide number of grade levels and by students with varying learning abilities. The game format is a motivating method of teaching spatial skills and developing problem solving abilities.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of menu selection, using the arrow keys and return key to draw a web, choosing web pieces by entering the numbers 1 - 20, and saving a web by entering "Y" or "N". A total of 80 webs can be stored, 20 each of simple, medium, complex and personal creations. Personal webs can be recalled by number while others are chosen randomly from within the category specified.

Negative feedback consists of four randomized statements (e.g. "The boss says to keep trying"). Positive feedback combines graphics, audio and text. Quantitative feedback provides a continuous display of the number of moves taken and, upon completion of the web, depicts the total number of points accumulated and the promotions available.

INSTRUCTIONAL FORMAT EVALUATION

Students are actively involved throughout the program and interaction is reasonably easy. The provision of a random selection from the databank or the choice of entering/choosing a unique creation adds to the value of the program. Feedback is immediate and appropriate, however it does not provide corrective assistance. Also, quantitative feedback could be improved by relating the student's score/number of moves to optimal figures. The fact that students have complete control of sequence, rate and amount is a program strength.

TECHNICAL CHARACTERISTICS DESCRIPTION

This program utilizes a combination of upper/lower case lettering, colorful graphics, and optional sound. Students may exit a program at any time.

IMPLEMENTATIONAL SUPPORT EVALUATION

The program is very user friendly and color and sound combine to make it interesting and motivating. While the graphics involved in web construction are very simple and do not resemble actual spider webs, they are adequate for the purposes of the program. Sound can be disabled, however the tunes are short and catchy and definitely add motivational value.

Improvements could be made in the saving option. In its present form there is no way of knowing what spaces are available for saves, nor is there provision for a quick method of deleting student created webs. Deletion appears to be accomplished only by saving over top of another web and this can be a very cumbersome process if the teacher desires to clear an entire disk.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A five page teacher's guide outlines several classroom readiness and reinforcement activities. A separate card provides a content overview and playing instructions for the web games.

IMPLEMENTATIONAL SUPPORT EVALUATION

The documentation is well laid out and contains interesting classroom implementational suggestions. Students with reading ability require little supervision when using the program, but students without reading ability do require an initial demonstration.

SUMMATION

This program represents an appropriate use of the computer medium, it is easy to implement, the game format is motivational, and the student is actively involved in each program. The program would likely meet its objectives of developing problem solving skills while at the same time building visual discrimination skills and encouraging creativity.

STATUS

"Logic Builders" has been authorized as a SUPPLEMENTARY learning resource for grades 2 to 6.

PURCHASE INFORMATION

This product is available for $68.95 (1986) from Scholastic at the address provided at the beginning of this report. Backup disks are provided at a cost of $30.00 each. The program may also be available locally, check with your software dealers.

Defective disks will be replaced free of charge within a 60-day warranty period. Subsequently, defective disks can be replaced for a fee of $10.00.

As the disk is accessed with each return to the main menu, it can be used effectively in only one computer at a time.

MATH ACTIVITIES COURSEWARE 1

DESCRIPTION

Title: Mathematics Activities Courseware 1 (MAC 1)
Authors: Doug Super et al
Publisher: Houghton Mifflin Canada Ltd
Source: 150 Steelcase Road West, Markham, Ontario L3R 1B2
Subject: Mathematics
Topics: Counting, addition, subtraction, comparison, telling time, place value, coinage
Components: 3 disks with backup, teacher's guide (52p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, color monitor
Other Formats Available (not evaluated): IBM PC/PCjr, Commodore 64

Version: 1986
Display Language: English
Cost: $180.00 (1986)
Tel. #: (416) 475-1755
Users: Grade 1

OBJECTIVES

This courseware is designed to engage students in active experiences involving estimation, problem-solving strategies and concept development.

PEDAGOGICAL CONTENT DESCRIPTION

MAC 1's three disks contain 12 games designed to provide drill and practice in basic arithmetic operations:

1. COLOR ME: The outline of a picture with several regions appears. A set of dots (1 to 6) appears in one of the regions. When the player presses the numeral representing the number of dots, that particular region of the picture is colored or filled in.
2. HOW MANY?: The player is required to identify the number of objects (from 5 to 9) hovering over a moonscape.
3. COUNTING ON: The students are encouraged to add by counting 1 or 2 onto a larger addend up to a sum of 9.
4. GIVE ME A HAND: A pair of hands helps the user understand the take-away meaning of subtraction and to demonstrate subtraction as a record of taking away or parting. Practice is given in subtracting 1, 2 and 3 from numbers to 9.
5. SOME ARE MISSING: A deeper understanding of addition equations is developed by focusing on patterns arising from the different addition facts totalling the same sum.
6. SUMS MASTER: The mastery of addition facts is promoted through drills of three different skill levels.
7. RACING BEYOND TEN: The user must compare numbers to 20 by adding and counting on to numbers beyond 10.
8. SETTING THE CLOCK: The student learns to distinguish between the hour and the minute hands on a dial clock by matching the time shown in digital format.
9. UP TO 99: The user is required to match standard numerals and concrete models and thereby reinforce number concepts and skills related to place value, counting and comparing to 99.
10. ALL IN THE FAMILY: With the help of sets of objects partitioned into two subsets, students deepen their understanding of and skill with basic addition and subtraction facts via the unifying relationship of fact families.
11. HOW LONG?: Students are required to estimate, in centimeters, the lengths of two lines, each to a maximum of 9 cm.
12. COINS ADVENTURE: The student is provided with experience identifying and creating amounts to 99 cents by using quarters, dimes, nickels and pennies. In "How Much" the user finds the value of the set of coins while in "Make Coins", the user must pick coins that equal a given amount.

This courseware is designed to supplement the Houghton Mifflin Mathematics textbook and each activity is directly designed to meet certain objectives related to a central concept from one of the units.

The games are designed so that individuals as well as groups may play. Many of the activities are open ended thus permitting involvement at varying levels of sophistication. In addition, interaction within a group in the determination of appropriate answers is encouraged. The content range of most of the games can be set by the teacher.

PEDAGOGICAL CONTENT EVALUATION

The content depth and sequence of these drill and practice activities are appropriate for the target audience. The content range in a few of the programs is quite challenging (e.g. "Racing Beyond Ten" and "All in the Family") but these games would be appropriate for enrichment. Although the program would supplement any authorized Grade 1 text provided the suggested lead-up activities are employed, they are specifically designed to supplement the Houghton Mifflin Grade 1 mathematics workbook. When used in combination with classroom instruction and in conjunction with the support materials provided, this courseware fulfills its stated objectives.

Content activities are motivating and the ability of the teacher to control the content range adds considerable flexibility to the package.

INSTRUCTIONAL FORMAT DESCRIPTION

Interaction with the program consists of menu selections, a variety of answer inputs including numerical values, letter values, arrow keys, space bar, ESC and RETURN keys. Inappropriate keys are usually disabled.

Questions are generated randomly from limited data banks. Feedback techniques are presented graphically with the use of sound, text and animation. Graphical positive feedback motivates the student to get the answer correct. Some of the activities have a type of quantitative feedback which is also used as clues for the students. Negative feedback is mostly absent as the program adopts the practice of ensuring that students get success without receiving discouraging feedback. Errors are presented later in only one of the activities.

INSTRUCTIONAL FORMAT EVALUATION

The interaction is consistent and the readability is appropriate for Grade 1 students. Game structure is both unique and imaginative and effectively reinforces classroom teaching. Two of the games can have a timing factor to motivate students and quicken their response time. The range and difficulty can usually be adjusted by the teacher, increasing the use of the program.

The non-threatening and immediate feedback is appropriate and occasionally corrective. The quantitative feedback, where available, is intended as clues for the user rather than for reporting to the teacher. Graphics, animation and sound are usually used to advantage in this regard as well. Help for incorrect answers is available for the more difficult activities but generally the same instructions are repeated regardless of the number of incorrect attempts made by the student.

As explanations on how to play the game are missing from the disk (and not appropriate for this audience), prior introduction to each activity by the teacher is required.

TECHNICAL CHARACTERISTICS DESCRIPTION

Graphics and animation are an essential component of this program. Color is used, but a color monitor is not mandatory. Sound is optional and is controlled prior to or during the activity.

TECHNICAL CHARACTERISTICS EVALUATION

The technical design is excellent. Displays are appropriate and effective except for "How Many" where the objects to be counted are too small and move too quickly even at the slowest speed. The text is clear and transition from one display to the next is smooth; however, users must be prepared to wait while the many and varied graphics are loaded. The animation usually promotes learning and clarifies concepts. Optional sound complements each program, but some of the activities require the sound for full benefit to be attained. The size of print in some of the activities is too small for the target audience. Since all keys unnecessary to the game are disabled, the program is nearly bomb-proof.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A 52 page teacher's manual outlines specific objectives for each activity, contains program operating instructions, suggests alternate classroom activities and provides student worksheets. A management system enables the teacher to use/disable sound, control student program selections as well as change the content range (within the specified limits) and/or level of difficulty for each of the activities.

IMPLEMENTATIONAL SUPPORT EVALUATION

The documentation is well organized and following its guidelines results in easy implementation. It is noted that Activity 6 "Sums Master" is to be used BEFORE Activity 5 "Some Are Missing" according to the textbook correlation mentioned. These two activities may be mis-numbered.

The worksheets are closely linked with the computer activities and provide a good record of student progress. The management system is easy to access and use. However, it lacks the important function of recording student progress. The controls given to the teacher to change the range and levels of difficulty are excellent and greatly increase the usefulness of the program. For most of the activities, one disk can be used to load several computers. It is important to have the appropriate size of monitor when using the "How Long?" activity as the program can freeze if the monitor is too small.

SUMMATION

The major strengths of this package are the abundance of practice it provides in basic mathematical operations, the game approach, and the effective use of color, graphics, sound and animation to keep the child motivated. The controls given to the teacher to adjust the range and difficulty of the content for each activity and the open-ended nature are excellent features. The optional sound and useful documentation are added benefits.

Teachers will need to assist students having difficulty as only limited feedback is provided and some problem solving activities may prove to be overly challenging to weaker students. Also, the management system is inadequate as it does not record the student's progress.

STATUS

"Math Activities Courseware 1" has been authorized as a **RECOMMENDED** learning resource for grade 1.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distribution Centre for a special price of approximately $140.00 (1986). Defective disks will be replaced without charge within a 30 day warranty period. Disks which become inoperable through normal use may be returned to LRDC and be replaced for approximately $28.00 (1986).

Each disk has the advantage of being capable of operation with more than one machine at a time if only one activity is accessed; however, such use is subject to copyright laws and any license or purchase agreement.

MATH ACTIVITIES COURSEWARE 2

DESCRIPTION

Title: Math Activities Courseware 2 (MAC 2)
Authors: Doug Super et al
Publisher: Houghton Mifflin Canada Ltd
Source: 150 Steelcase Road West, Markham, Ontario L3R 1B2
Subject: Mathematics
Topics: Ordering numbers, adding & subtracting, place value, fractions, telling time, symmetry
Components: 3 disks with backups, teacher's guide (62p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, color monitor preferred
Other Formats Available (not evaluated): IBM PC/PCjr, Commodore 64

Version: 1986
Display Language: English
Cost: $180.00 (1986)
Tel. #: (416) 475-1755
Users: Grade 2

OBJECTIVES

This courseware is designed to engage students in active experiences involving estimation, problem-solving strategies, and concept development.

PEDAGOGICAL CONTENT DESCRIPTION

MAC 2's three disks contain 12 games designed to provide drill and practice in basic arithmetic operations:

1. DOT TO DOT: Students complete a dot-to-dot puzzle by ordering its numbers from smallest to greatest. Numbers range from 1 - 20.
2. DOG AND BONE: Given an illustrated subtraction problem, students race against time in an attempt to fill in a missing addend or subtrahend.
3. TRICKY TRADING: Given a collection of coins or base 10 blocks, students are challenged to re-group 10 ones to 1 ten and 20 ones for 2 tens, with numbers to 99.
4. PUZZLE IT OUT: Students utilize trial and error strategy for number facts up to 12 in an attempt to position the ten digits 0 - 9 so that five equations are simultaneously true.
5. SYMMETRY DRAW: This program offers two modes. In "Draw a Picture", the student draws to the left of a vertical centre line as the program automatically draws the symmetrical opposite and in "Play a Game" the student is challenged to construct a path that will complete a symmetrical figure about a centre line.
6. THE 999 PUZZLE: By sliding three digit numbers to and fro, students attempt to place them in ascending order in as few turns as possible.
7. MONSTER MAZE: While moving a happy face around a wedge-shaped checkered board and avoiding a monster, students develop an understanding of two digit addition and subtraction without re-grouping.
8. CATCH ME IF YOU CAN: By moving the hour and minute hand of a dial clock to match the time shown on a digital clock, students gain practice in telling time in five minute intervals.
9. ADDITION SHUFFLE: Given three addition problems positioned within a circle, students are challenged to pick three addends so as to simultaneously satisfy the three given sums (to a maximum of 13).
10. MATH DETECTIVE: By detecting mistakes in two digit addition and subtraction problems, students are given a series of clues which help them to detect a two-digit mystery number.
11. FRACTION RAINBOW: Students use the arrow keys to shade geometric figures to 1/2, 1/3, 2/3, 1/4, 2/4, or 3/4.
12. CODES X RIDDLES: In a game format featuring coded answers to riddles, students practice multiplication facts with products to 26.

This courseware is designed to supplement the Houghton Mifflin Mathematics textbook and each activity is directly designed to reinforce a central concept of one of the textbook units. User support materials consisting of worksheets and activities are provided for each game.

The games are designed so that individuals or groups may play against the computer or against each other. Many of the activities are open ended thus permitting involvement at varying levels of sophistication. In addition, interaction within a group in the determination of appropriate strategies is encouraged.

PEDAGOGIAL CONTENT EVALUATION

The content depth and sequence of these drill and practice programs are appropriate for the target audience. Content range in a few of the programs is quite challenging (e.g. "999 Puzzle" or "Addition Shuffle") but the games would be appropriate for enrichment. Although the programs would supplement any authorized Grade 2 text provided the suggested lead-up activities are employed, they are specifically designed to supplement the Houghton Mifflin Grade 2 mathematics textbook. When used in combination with classroom instruction and in conjunction with the support materials provided, this courseware fulfills its stated objectives.

INSTRUCTIONAL FORMAT DESCRIPTION

Each game requires the student to demonstrate mastery of the skill mentioned in the objectives, to think of several possible answers to the randomized questions posed, and then to enter the answer that will most likely result in a successful turn. Feedback usually combines text, graphics and sound. Sequence of presentation is program controlled while rate and amount are both user and program controlled.

INSTRUCTIONAL FORMAT EVALUATION

Interaction is consistent and readability is appropriate to a grade 2 audience. Game structure is both unique and imaginative and effectively reinforces classroom teaching. A few of the games are timed which serves to heighten student motivation and interest and to quicken response time. Students can compete with the computer or with other students and are encouraged to watch the responses of their opponent attentively in order to plan effective strategy for their next move. The fact that several of the programs offer two or three levels of playing difficulty is a program plus.

Feedback is immediate, non-threatening, and motivational; however, it is often non-corrective. Furthermore, no evaluations or branches are available. While limited help avenues are available, they usually repeat the same instruction regardless of the number of incorrect attempts the student has made.

The disk instructions are often difficult to understand, thus teachers must be prepared to devote time to assisting students in the playing process.

TECHNICAL CHARACTERISTICS DESCRIPTION

Graphics are an essential component of the programs. Color is used, but a color monitor is not mandatory. Sound can be teacher-disabled.

TECHNICAL CHARACTERISTICS EVALUATION

Displays are appropriate and effective, text is clear and easy to read. Transition from one display to the next is smooth, however users must be prepared for waits as graphics are loaded. Optional sound compliments each program. The program is bomb-proof in that all keys unnecessary to game operation are disabled.

In consideration of the young target audience, a larger character size in the instructions and in some of the displays (e.g. Code X Riddles) would be appropriate. Also, some time constraints may prove too limiting for young students. For example, in "Fraction Rainbow", the student may not have time to organize his or her fraction skills before the clue appears.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A teacher management system enables teachers to use/disable sound and to control student program selection. A 62 page instructor's guide contains student worksheets, provides program operating instructions, suggests alternate classroom activities, and outlines specific objectives for each program.

IMPLEMENTATIONAL SUPPORT EVALUATION

The management system is easy to access and use. Documentation is well organized and following its guidelines results in easy implementation. The worksheets are closely linked with the computer programs and provide a good record of student progress.

SUMMATION

The major strengths of this package are the abundance of practice it provides in basic mathematical operations and its general motivational and interesting instructional approach. Teachers will need to assist students having difficulty as only limited feedback is provided and some problem solving activities may prove to be overly challenging to weaker students.

STATUS

"Math Activities Courseware 2" has been authorized as a **RECOMMENDED** learning resource for grade 2 students.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distribution Centre for a special price of $141.50 (1986). Defective disks will be replaced without charge within a 30 day warranty period. Disks which become inoperable through normal use may be returned to LRDC and be replaced for approximately $28.00 (1986).

Each disk has the advantage of being capable of operation with more than one machine at a time if only one activity is accessed; however, such use is subject to copyright laws and any license or purchase agreement.

MICROSOFT WORD

DESCRIPTION

Title: Microsoft Word
Author: None Cited
Publisher: Microsoft Corporation
Source: c/o Microsoft Canada Inc, 6300 Northwest Dr, Mississauga, Ontario L4V 1T4
Subjects: Business Education
Topics: Word processor
Version: 3.0
Display Language: English
Cost: LRDC Buyer's Guide
Tel. #: (416) 673-7638
Users: Grades 10 - 12
Components: 6 disks (program, speller, utilities, printer, 2 tutorial disks), user's manual (362 p.), reference manual (282 p.), outlining pamphlet (12 p.), coiled printer booklet (97 p.), quick reference card, function key template
System Requirements: IBM PC/XT/AT, PC-DOS 2.0 or later, 245K Ram (320K required with the help tutorial), dual floppy drives or a floppy drive and hard disk system, monitor, printer, mouse (optional)
Other Formats Available (not evaluated): IBM compatibles

OBJECTIVES

"Microsoft Word" is a word processing package designed to teach the management of complex documents with the aid of a self-paced student tutorial. Included in the package are word processing, utilities, printing, spelling checker and tutorial functions accessed via the keyboard or a mouse.

EDITOR DESCRIPTION

Preset formats allow the novice user to immediately begin entering a document, however, default values can be modified. Document size is limited only by the available memory. Files are named (up to 8 characters) after data is created and stored, at which time the document name appears on the bottom left hand corner of the screen.

The bottom four lines of the screen are reserved for the command menu, for error messages, and for status information. The program automatically starts in the "type" mode; a menu selection of "edit" accesses major editing options. On-screen help is available at any time and an online tutorial allows the user to practice a command before using it on a document.

Cursor movement is accomplished with the arrow keys, page up, page down, home and end keys either singly or in combination with CTRL or functions keys for more complex movements (such as within a window). Deleting may be done by character, word, line, paragraph, page or specified sections of a document. An UNDO command will reverse the last editing or formatting action.

Blocks of material of any length may be moved, and vertical and horizontal windows enable viewing of both the source and the destination.

EDITOR EVALUATION

Document creation is simple and adjustments to the default values are straightforward. While the program will perform all desired editing procedures, gaining initial familiarity with the 260 possible commands is time consuming (e.g. the backspace key is used to erase in type mode but highlights in edit mode) and the number of key combinations used makes learning more difficult than some other programs on the market.

Moves are easily accomplished, both within a file and between files. The ability to recover material erased under the delete command (from a scrap file) is a useful feature.

FILE MANAGEMENT DESCRIPTION

"Microsoft Word's" print merge command automatically prints customized versions of form letters through the creation of a main and data document. It allows import/exports from other software including Multiplan, Wordstar and Ready. It allows manipulation of six major types of files: DIF, columnar text ASCII, delimited text ASCII, dBASE II text, and SYLK.

FILE MANAGEMENT EVALUATION

This program offers good interface ability. The ability to use wild card characters facilitates efficient deletion of files.

PRINT FORMATTER DESCRIPTION

This program is preset to print on 8.5 X 11 inch paper with 1 inch top and bottom margins, and 1.25 right and left margins. Preset tab stops, set at half-inch intervals, can be deleted or moved at will. Text can be set to align at a tab stop at the left, right, center, or the decimal point.

The program supports multicolumn documents with separate formatting settings for each column. While the program does not offer password security, it does offer "read only" options. Automatic centering between margins and hyphenation capability are offered. The decision to justify can be made at any point in the document creation process, and portions of a file can be justified with other parts left unjustified.

Line spacing can be set by line or points. Microspace justification is available provided appropriate printer support is in place.

Automatic pagination can be user controlled and page number formats can be in Arabic, Roman upper or lower case, or alphabetic upper and lower case.

The screen display closely approximates the printed page with standard text shown in normal color and all other formatting appearing in an alternate color or, in the case of a monochrome screen, other fonts are underlined.

Special features offered by the program include optional mouse cursor control, automatic numbering and renumbering of footnotes, the ability to designate terms for a table of contents or index, macrokey ability of up to 256 characters, calculation ability, customized form letters, the ability to set widow/orphan control, reverse field viewing, and a spell feature offering 80,000 words in the standard dictionary plus a user-defined dictionary.

PRINT FORMATTER EVALUATION

The margins are easily set and adjusted, but are tucked away within the format command under paragraph or division, rather than as a separate format. Once defined, the margins will revert back to the default unless the format is saved properly through a series of steps, a cumbersome process! Although a ruler appears in the top border when formatting a paragraph, this ruler guide unfortunately is not present during the editing process.

The process of setting and adjusting tab stops is easy and offers good flexibility. Printing options provide for the printing of entire files, portions of documents, printing of vertical and horizontal lines, and for spooling. Print can be aborted at any time.

"Microsoft Word's" screen display is excellent and the host of extra features offered by this program add to its value.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The program's implementational support includes six diskettes: Word Program, Word Utilities, Word Printer, Spell, Learning Microsoft Word: Keyboard Version, and Learning Microsoft Word: Mouse Version. The manual is divided into two sections: Using Microsoft Word (362 pages) and Reference (282 p). A 12 page phamplet presents outline samples and explanations, and a quick reference card summarizes operations.

IMPLEMENTATIONAL SUPPORT EVALUATION

The documentation is well organized; however, it is written for someone with previous exposure to word processing. Some of the terminology is unconventional (e.g. select = cursor movement, running head = headers and footers, etc.) and some explanations are too brief to enable easy implementation for a true novice. For example, concepts such as justification, underlining and centering, are skimmed over.

EASE OF USE EVALUATION

While the program offers a good range of features, disk swapping is required to operate them. The student tutorial is very useful and is comprehensive, working through it takes about three hours. An additional 20 - 30 hours of supervised instruction would likely be necessary before students would feel totally comfortable with all aspects of the program.

It is possible to lock the program by pressing a key prematurely while the program is processing.

SUMMATION

"Microsoft Word's" chief strengths are its excellent on-screen display, the ability to move information easily within and between files, the inclusion of a comprehensive, self-paced student tutorial, and the variety of high-powered additional features available. These strengths must be balanced against unconventional terminology used in the documentation, the limited explanations offered on some concepts, the need for disk swapping, and the initial time needed to learn the 260 commands.

STATUS

"Microsoft Word" has been authorized as a BASIC learning resource for grades 10 to 12.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distributing Centre for an approximate package price of $164.00 less a 15% educational discount and an additional 25% subsidy discount.

Microsoft provides a warranty on defective materials plus upgrades (at cost) directly to customers.

M-SS-NG L-NKS: CLASSICS, OLD AND NEW

DESCRIPTION

Title: M-ss-ng L-nks: Classics, Old and New
Authors: Carol Chomsky & Judah Schwartz
Publisher: Sunburst Communications
Source: 39 Washington Avenue, Pleasantville, NY 10570-9971
Subject: Language Arts
Topics: Using structural cues to decipher passages from famous authors
Components: 1 disk with backup, teacher's guide (52p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): IBM PC/PCjr, Commodore 64, TRS-80 Models III/IV

Version: 1983
Display Language: English
Cost: $59.00 US (1986)
Tel. #: (914) 769-5030
Users: Grade 6

OBJECTIVES

The stated objectives are as follows: to develop a sense of the author's style, to improve comprehension, to make inferences, to use context clues, to extend vocabulary, to improve sensitivity to grammar and punctuation, to recognize nuances of word meaning, to develop a sense of continuity and cohesion, to practice correct sentence structure and phrasing and to practice the correct spelling of a word.

PEDAGOGICAL CONTENT DESCRIPTION

This program, which uses a game format, contains nine passages taken from nine areas (eighty-one passages in all). The passages are by authors such as Hemingway, Shakespeare, Twain, Huxley, Christie and others. They include the following broad areas: the sea, unreal worlds, humor, food, sounds, memories of childhood, limericks, mysteries and the human condition. Each passage can be presented in any of nine formats with increasing levels of difficulty. The passages are presented with some letters and words missing and the object of the game is to complete the blanks in the passage with the least number of tries. The formats include such possibilities as the consonants printed with the vowels missing, every second letter shown, the first letter of each word printed, every second word printed, only the vowels printed and all consonants omitted, only the last letter of each word printed, the first word in each sentence printed, only the number of blanks for each word and the punctuation printed, and only the name of the passage and author's name printed. The student may select or the teacher may preset the number of players (one or two), the topic, the passage, the format, the maximum number of guesses for each letter, the maximum number of guesses per turn for each player in the game version and the use of sound in the program. The students may have one to five tries on a letter before the program provides the missing letter. If a student is having difficulty, he or she may move beyond the trouble point in order to gain some help from the context and then go back and complete the word.

PEDAGOGICAL CONTENT EVALUATION

The range and depth of content are appropriate and effective. The content which has been chosen is suitable in interest and reading level. The variety of passages and the flexibility in choosing the formats are good. However, the educational value of the last format which involves rewriting an author s work, letter by letter without clues, may be questionable. The formats are sequenced effectively from easy to difficult but if the teacher option is not exercised, the program is designed to allow the user the choice of material to be covered. It is noted that since some passages are more difficult than others and some students will be more familiar with some passages than others, the teacher may wish to preset the choices. The provision of an authoring system to allow the inclusion of teacher selections would be beneficial.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of choosing to read the directions or not, choosing the number of players, the topic, the passage, the format, the maximum number of guesses, and then typing letters or words to complete the chosen format. Pressing RETURN accesses the score during the game and ESC or CONTROL-E allows the student the option of stopping or playing again. The program allows the teacher to preset any or all of the options before the students use the program. If this has been done, the student has no choices to make. Once the choices have been completed, the blanks or spaces in the passage appear in a preprogrammed order.

Feedback is provided after all user responses. If the response is correct, the letter is printed in the passage and the cursor goes on to the next blank. An incorrect response results in the letter being displayed at the bottom of the screen and the cursor waits for the next try. If a student uses the maximum tries without finding the correct letter, the program automatically fills in the correct letter and an audio beep is sounded. If the sound option is used, a musical tune is played when the passage is completed. Quantitative feedback is available during and at the end of the game. It indicates the number of blanks, the number of attempts, the number and percentage of correct responses, the number of incorrect responses, the number of letters supplied by the computer and an overall percentage. The overall percentage takes into account the number of first correct guesses, the number of wrong guesses and the number of letters supplied by the computer. The quantitative feedback is not saved on the disk.

No pre- or post-tests are provided.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate and effective and the students should have no problems using the program. It is unfortunate that a game in progress cannot be stored to be completed later, especially in the more difficult formats. A good variety of reading materials and practice formats provides students with numerous opportunities to use reading comprehension and problem solving skills to successfully complete the assignments. All questions are preprogrammed with a variety of fill in the blank type exercises.

Feedback is immediate and consistent. It would be beneficial to the students who are having difficulties to have more assistance in the form of hints or branches which would provide strategies to develop the reading and problem solving skills which are required to determine the missing blanks. The quantitative feedback is clearly displayed and easy to understand. Unfortunately the scores and a record of completed work are not retained on the disk and the program does not provide the teacher with diagnosis of the students' weaknesses. The user/teacher has good control of the program in terms of menu selections and rate. Additional control keys, to move the cursor in a reading passage, provide flexibility in using the program.

TECHNICAL CHARACTERISTICS DESCRIPTION

Standard size text using both upper and lower case letters is presented. No color or graphics are used. Sound, which is optional, is utilized in the form of a "beep" with incorrect entries and a short tune at the end of each exercise.

TECHNICAL CHARACTERISTICS EVALUATION

The displays contain suitably sized print and are clear, well-spaced and generally easy to read. Occasionally the displays are somewhat crowded because of the length of the passage. The program always provides a clear indication when input is necessary. The sound option is an advantage in that sound can be turned off when it is distracting. The program is easy to operate and the students should be able to use it with little teacher supervision.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

Although no special entry competencies beyond the basic reading skills are identified, students really require reading and problem solving strategies and use of context clues and spelling to complete the puzzles successfully.

A teacher option allows the teacher to control the number of players per game, the selection of the topic, the passage, the format, the maximum number of attempts allowed before the program provides the correct response, and a decision on the sound option.

The teacher documentation includes an introduction, a rationale for using the program, teaching objectives, a program description, a description of student and teacher options and a description of the nine formats in the program. It describes the format for reporting student scores, provides a record sheet, outlines teaching suggestions for general use and the use with younger or older students. All passages from each of the three disks which are part of the "M-ss-ng L-nks" series are included. No user support materials are provided.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although a game format is used, the games are not necessarily easy. The games require a considerable degree of competency in various reading skills including the use of context clues, problem solving skills and spelling skills. Students with reading problems may find some of the game formats too challenging.

The teacher option is easy to use and functions as described. It is useful in that it allows the teacher to preset formats according to the needs of the users. However, there is no provision for maintaining class lists or student scores, diagnosing student weaknesses or providing a printout. The inclusion of a management system to carry out these functions would be valuable to the teacher.

The documentation is well-organized and easy to follow. The program would be easy to implement in a classroom situation and would require a minimum of teacher supervision.

SUMMATION

The major strengths of this program are the appropriate range, depth and sequence of content, easy student interaction with the program, good user control, good technical quality and very good teacher documentation.

The program is limited by the lack of a management system which would save and maintain records for each student and could provide diagnoses of student weaknesses, etc. The fact that students can not save incomplete assignments to be completed at a later time is a drawback. Branches which would provide more assistance for students with difficulties would be very beneficial.

STATUS

"M-ss-ng L-nks: Classics, Old and New" has been authorized as a **SUPPLEMENTARY** learning resource for grade 6.

PURCHASE INFORMATION

This product may be purchased from Sunburst Communications for $59.00 US (1986) at the address provided at the beginning of this report. "M-ss-ng L-nks" is also available in a lab pack consisting of one teacher's guide and 10 disks for $177.00 US (1986) or a Corvus Network version for the same price. This product may also be available locally, check with your software dealer.

Sunburst Communications includes a replacement warranty on all components for the life of the product. This warranty covers components that are defective, lost, stolen or damaged during normal school use. Also, program updates and improvements are provided at no charge if the purchaser indicates on the order form that he or she wants them.

M-SS-NG L-NKS: MICROENCYCLOPEDIA

DESCRIPTION

Title: M-ss-ng L-nks: Microencyclopedia
Authors: Carol Chomsky & Judah Schwartz
Publisher: Sunburst Communications
Source: 39 Washington Avenue, Pleasantville, NY 10570-9971
Subject: Language Arts
Topics: Using structural cues to decipher passages in seven topics
Components: 1 disk with backup, teacher's guide (52p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): IBM PC/PCjr, Commodore 64, TRS-80 Models III/IV

Version: 1983
Display Language: English
Cost: $59.00 US (1986)
Tel. #: (914) 769-5030
Users: Grades 4 - 6

OBJECTIVES

The stated objectives are as follows: to develop a sense of the author's style, to improve comprehension, to make inferences, to use context clues, to extend vocabulary, to improve sensitivity to grammar and punctuation, to recognize nuances of word meaning, to develop a sense of continuity and cohesion, to practice correct sentence structure and phrasing, and to practice the correct spelling of a word.

PEDAGOGICAL CONTENT DESCRIPTION

This program, which uses a game or puzzle format, contains eight passages taken from seven topics (fifty-six passages in all). The passages include the following topics: ice-cream, bicycles, baseball, whales and sharks, elephants, airplanes and inventions. Each passage, which usually contains forty to seventy words, can be presented in any of nine formats with increasing levels of difficulty. The passages are presented with some letters and words missing and the object of the game is to complete the blanks in the passage with the least number of tries. The formats include such possibilities as the consonants printed with the vowels missing, every second letter shown, the first letter of each word printed, every second word printed, only the vowels printed and all consonants omitted, only the last letter of each word printed, the first word in each sentence printed, only the number of blanks for each word and the punctuation printed, and only the name of the passage and author's name printed. The student may select or the teacher may preset the number of players (one or two), the topic, the passage, the format, the maximum number of guesses for each letter, the maximum number of guesses per turn for each player in the game version and the use of sound in the program. The students may have one to five tries on a letter before the program provides the missing letter. If a student is having difficulty, he or she may move beyond the trouble point in order to gain some help from the context and then go back and complete the word.

PEDAGOGICAL CONTENT EVALUATION

The range and depth of content are appropriate and effective for the target audience. Also, the content is suitable in interest and reading level for the intended users. The variety of passages and the flexibility in choosing the formats are good. However, the educational value of the last format which involves rewriting an author's work, letter by letter without clues, is questionable. The formats are sequenced effectively from easy to difficult but if the teacher option is not exercised, the program is designed to allow the user the choice of material to be covered.

The content is intended for an American audience and is reflected in the choice of passages. Perhaps choices of passages which are more universal could have been used. The provision of an authoring system to allow the inclusion of teacher selections would be beneficial. However, the overall benefits of the program make it worthwhile for our students.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of choosing to read the directions or not, choosing the number of players, the topic, the passage, the format, the maximum number of guesses, and then typing letters or words to complete the chosen format. Pressing RETURN accesses the score during the game and ESC or CONTROL-E allows the student the option of stopping or playing again. The program allows the teacher to preset any or all of the options before the students use the program. If this has been done, the student has no choices to make. Once the choices have been completed, the blanks or spaces in the passage appear in a preprogrammed order.

Feedback is provided after all user responses. If the response is correct, the letter is printed in the passage and the cursor goes on to the next blank. An incorrect response results in the letter being displayed at the bottom of the screen and the cursor waits for the next try. If a student uses the maximum tries without finding the correct letter, the program automatically fills in the correct letter and an audio beep is sounded. If the sound option is used, a musical tune is played when the passage is completed. Quantitative feedback is available during and at the end of the game. It indicates the number of blanks, the number of attempts, the number and percentage of correct responses, the number of incorrect responses, the number of letters supplied by the computer and an overall percentage. The overall percentage takes into account the number of first correct guesses, the number of wrong guesses and the number of letters supplied by the computer. The quantitative feedback is not saved on the disk.

No pre- or post-tests are provided.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate and effective and the students should have no problems using the program. It is unfortunate that a game in progress cannot be stored to be completed later, especially in the more difficult formats. A good variety of reading materials and practice formats provide students with numerous opportunities to use reading comprehension and problem solving skills to successfully complete the assignments. All questions are preprogrammed with a variety of fill in the blank type exercises.

Feedback is immediate and consistent. It would be beneficial to the students who are having difficulties to have more assistance in the form of hints or branches which would provide strategies to develop the reading and problem solving skills which are required to determine the missing blanks. The quantitative feedback is clearly displayed and easy to understand. Unfortunately the scores and a record of completed work are not retained on the disk and the program does not provide the teacher with diagnosis of the students' weaknesses. The user/teacher has good control of the program in terms of menu selections and rate. Additional control keys, to move the cursor in a reading passage, provide flexibility in using the program.

TECHNICAL CHARACTERISTICS DESCRIPTION

Standard size text using both upper and lower case letters is presented. No color or graphics are used. Sound, which is optional, is utilized in the form of a "beep" with incorrect entries and a short tune at the end of each exercise.

TECHNICAL CHARACTERISTICS EVALUATION

The displays contain suitably sized print and are clear, well-spaced and generally easy to read. Occasionally the displays are somewhat crowded because of the length of the passage. The program always provides a clear indication when input is necessary. The sound option is an advantage in that sound can be turned off when it is distracting. The program is easy to operate and the students should be able to use it with little teacher supervision.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

Although no special entry competencies beyond the basic reading skills are identified, students really require reading and problem solving strategies, use of context clues and spelling to complete the puzzles successfully.

A teacher option allows the teacher to control the number of players per game, the selection of the topic, the passage, the format, the maximum number of attempts allowed before the program provides the correct response, and a decision on the sound option.

The teacher documentation includes an introduction, a rationale for using the program, teaching objectives, a program description, a description of student and teacher options and a description of the nine formats in the program. It describes the format for reporting student scores, provides a record sheet, outlines teaching suggestions for general use and the use with younger or older students. All passages from each of the three disks which are part of the "M-ss-ing L-nks" series are included. No user support materials are provided.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although a game format is used, the games are not necessarily easy. The games require a considerable degree of competency in various reading skills including the use of context clues, problem solving skills and spelling skills. Students with reading problems may find some of the game formats too challenging.

The teacher option is easy to use and functions as described. It is useful in that it allows the teacher to preset formats according to the needs of the users. However, there is no provision for maintaining class lists or student scores, diagnosing student weaknesses or providing a printout. The inclusion of a management system to carry out these functions would be valuable to the teacher.

The documentation is well-organized and easy to follow. The program would be easy to implement in a classroom situation and would require a minimum of teacher supervision.

SUMMATION

The major strengths of this program are the appropriate range, depth and sequence of content, easy student interaction with the program, good user control, good technical quality and very good teacher documentation.

The program is limited by the lack of a management system which would save and maintain records for each student and could provide diagnoses of student weaknesses, etc. The fact that students can not save incomplete assignments to be completed at a later time is a drawback. Branches which would provide more assistance for students with difficulties would be very beneficial.

STATUS

"M-ss-ng L-nks: Microencyclopedia" has been authorized as a **SUPPLEMENTARY** learning resource for grades 4 - 6.

PURCHASE INFORMATION

This product may be purchased from Sunburst Communications for $59.00 US (1986) at the address provided at the beginning of this report. "M-ss-ng L-nks" is also available in a lab pack consisting of one teacher's guide and 10 disks for $177.00 US (1986) or a Corvus Network version for the same price. This product may also be available locally, check with your software dealers.

Sunburst Communications includes a replacement warranty on all components for the life of the product. This warranty covers components that are defective, lost, stolen or damaged during normal school use. Also, program updates and improvements are provided at no charge if the purchaser indicates on the order form that he or she wants them.

M-SS-NG L-NKS: YOUNG PEOPLE'S LITERATURE

DESCRIPTION

Title: M-ss-ng L-nks: Young People's Literature
Authors: Carol Chomsky & Judah Schwartz
Publisher: Sunburst Communications
Source: 39 Washington Avenue, Pleasantville, NY 10570-9971
Subject: Language Arts
Topics: Using structural cues to decipher passages from nine children's classics
Components: 1 disk with backup, teacher's guide (52p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): IBM PC/PCjr, Commodore 64, TRS-80 Models III/IV

Version: 1983
Display Language: English
Cost: $59.00 US (1986)
Tel. #: (914) 769-5030
Users: Grade 4 - 6

OBJECTIVES

The stated objectives are as follows: to develop a sense of author's style, to improve comprehension, to make inferences, to use context clues, to extend vocabulary, to improve sensitivity to grammar and punctuation, to recognize nuances of word meaning, to develop a sense of continuity and cohesion, to practice correct sentence structure and phrasing and to practice the correct spelling of a word.

PEDAGOGICAL CONTENT DESCRIPTION

This program, which uses a game or puzzle format, contains nine passages taken from each of nine children's classics (eighty-one passages in all). The passages are taken from The Wind in the Willows, The Cricket in Times Square, The Lion, The Witch and The Wardrobe, The Secret Garden, The Mixed-Up Files of Mrs. Basil E. Frankweiler, Shadow of a Bull, My Side of the Mountain, Charlie and the Chocolate Factory, and Little House in the Big Woods. Each passage, which usually contains fifty to seventy words, can be presented in any of nine formats with increasing levels of difficulty. The passages are presented with some letters and words missing and the object of the game is to complete the blanks in the passage with the least number of tries. The formats include such possibilities as the consonants printed with the vowels missing, every second letter shown, the first letter of each word printed, every second word printed, only the vowels printed and all consonants omitted, only the last letter of each word printed, the first word in each sentence printed, only the number of blanks for each word and the punctuation printed, and only the name of the passage and author's name printed. The student may select or the teacher may preset the number of players (one or two), the book, the passage, the format, the maximum number of guesses for each letter, the maximum number of guesses per turn for each player in the game version, and the use of sound in the program. The students may have one to five tries on a letter before the program provides the missing letter. If a student is having difficulty, he or she may move beyond the trouble point in order to gain some help from the context and then go back and complete the word.

PEDAGOGICAL CONTENT EVALUATION

The range and depth of content are appropriate and effective for most of the target audience. The children's classics which have been chosen are suitable in interest and reading level; however, some of the the weaker readers may find some of the passages somewhat long. The wide variety of passages and the flexibility in choosing the formats are good. However, the educational value of the last format which involves rewriting an author's work, letter by letter without clues, is questionable. The formats are sequenced effectively from easy to difficult but if the teacher option is not exercised, the program is designed to allow the user the choice of material to be covered.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of choosing to read the directions or not, choosing the number of players, the book, the passage, format, the maximum number of guesses, and then typing letters or words to complete the chosen format. Pressing RETURN accesses the score during the game and ESC or CONTROL-E allows the student the option of stopping or playing again. The program allows the teacher to preset any or all of the options before the students use the program. If this has been done, the student has no choices to make. Once the choices have been completed, the blanks or spaces in the passage appear in a preprogrammed order.

Feedback is provided after all user responses. If the response is correct, the letter is printed in the passage and the cursor goes on to the next blank. An incorrect response results in the letter being displayed at the bottom of the screen and the cursor waits for the next try. If a student uses the maximum tries without finding the correct letter, the program automatically fills in the correct letter and an audio beep is sounded. If the sound option is used, a musical tune is played when the passage is completed. Quantitative feedback is available during and at the end of the game. It indicates the number of blanks, the number of attempts, the number and percentage of correct responses, the number of incorrect responses, the number of letters supplied by the computer and an overall percentage. The overall percentage takes into account the number of first correct guesses, the number of wrong guesses and the number of letters supplied by the computer. The quantitative feedback is not saved on the disk.

No pre- or post-tests are provided.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate and effective and the students should have no problems using the program. It is unfortunate that a game in progress cannot be stored to be completed later, especially in the more difficult formats. A good variety of reading materials and practice formats provides students with numerous opportunities to use reading comprehension and problem solving skills to successfully complete the assignments. All questions are preprogrammed with a variety of fill in the blank type exercises.

Feedback is immediate and consistent. It would be beneficial to the students who are having difficulties to have more assistance in the form of hints or branches which would provide strategies to develop the reading and problem solving skills which are required to determine the missing blanks. The quantitative feedback is clearly displayed and easy to understand. Unfortunately the scores and a record of completed work are not retained on the disk and the program does not provide the teacher with diagnosis of the students' weaknesses. The user/teacher has good control of the program in terms of menu selections and rate. Additional control keys move the cursor in a reading passage and provide flexibility in using the program.

TECHNICAL CHARACTERISTICS DESCRIPTION

Standard size text using both upper and lower case letters is presented. No color or graphics are used. Sound, which is optional, is utilized in the form of a "beep" with incorrect entries and a short tune at the end of each exercise.

TECHNICAL CHARACTERISTICS EVALUATION

The displays contain suitably sized print and are clear, well-spaced and generally easy to read. Occasionally the displays are somewhat crowded because of the length of the passage. The program always provides a clear indication when input is necessary. The sound option is an advantage in that sound can be turned off when it is distracting. The program is easy to operate and the students should be able to use it with little teacher supervision.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

Although no special entry competencies beyond the basic reading skills are identified, students really require reading and problem solving strategies and use of context clues and spelling to complete the puzzles successfully.

A teacher option allows the teacher to control the number of players per game, the selection of the book, the passage, the format, the maximum number of attempts allowed before the program provides the correct response, and a decision on the sound option.

The teacher documentation includes an introduction, a rationale for using the program, teaching objectives, a program description, a description of student and teacher options and a description of the nine formats in the program. It describes the format for reporting student scores, provides a record sheet, outlines teaching suggestions for general use and the use with younger or older students. All passages from each of the three disks which are part of the "M-ss-ng L-nks" series are included. No user support materials are provided.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although a game format is used, the games are not necessarily easy. The games require a considerable degree of competency in various reading skills including the use of context clues, problem solving skills and spelling skills. Students with reading problems may find some of the game formats too challenging.

The teacher option is easy to use and functions as described. It is useful in that it allows the teacher to preset formats according to the needs of the users. However, there is no provision for maintaining class lists or student scores, diagnosing student weaknesses or providing a printout. The inclusion of a management system to carry out these functions would be valuable to the teacher.

The documentation is well-organized and easy to follow. The program would be easy to implement in a classroom situation and would require a minimum of teacher supervision.

SUMMATION

The major strengths of this program are the appropriate range, depth and sequence of content, easy student interaction with the program, good user control, good technical quality and very good teacher documentation.

The program is limited by the lack of a management system which would save and maintain records for each student and could provide diagnoses of student weaknesses, etc. The fact that students can not save incomplete assignments to be completed at a later time is a drawback. Branches which would provide more assistance for students with difficulties would be very beneficial.

STATUS

"M-ss-ng L-nks: Young People's Literature" has been authorized as a SUPPLEMENTARY learning resource for grades 4 - 6.

PURCHASE INFORMATION

This product may be purchased from Sunburst Communications for $59.00 US (1986) at the address provided at the beginning of this report. "M-ss-ng L-nks" is also available in a lab pack consisting of one teacher's guide and 10 disks for $177.00 US (1986) or a Corvus Network version for the same price. This product may also be available locally, check with your software dealers.

Sunburst Communications includes a replacement warranty on all components for the life of the product. This warranty covers components that are defective, lost, stolen, or damaged during normal school use. Also, program updates and improvements are provided at no charge if the purchaser indicates on the order form that he or she wants them.

MONEY MANAGER

DESCRIPTION

Title: Money Manager
Series: Mathematics Life Skills
Authors: Alan R. Chap & David A. Sidewater
Publisher: Computer Age Education Inc.
Source: 5225 Wisconsin Avenue N.W., Suite 601, Washington, DC 20015
Subject: Business Education, Mathematics
Topics: Personal financial planning simulation
Components: 1 disk, teacher's guide (11p.), user's guide (4p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Available only in Apple format

Version: 1984
Display Language: English
Cost: $29.95 US (1986)
Tel. #: (202) 966-3686
Users: Grades 10 - 12

OBJECTIVES

The program is a simulation designed to help the student develop and practice skills in financial management. The goal is to earn the most financial points possible over a simulated eight week period.

PEDAGOGICAL CONTENT DESCRIPTION

This program is a personal financial planning simulation which approximates "real life" situations. The student begins with a set amount of money in cash and in his or her checking and savings accounts. During the simulated eight week period, the user earns money, pays bills, makes purchases, manages cash, controls bank accounts, and makes other financial decisions while attempting to achieve a high score. Some of the "real life" situations require promptness in paying bills, responsibility for paying insurance premiums and mortgage payments when due, and planning for unexpected expenses such as car repairs, doctor's bills or a lost wallet etc. There is no one correct way to make decisions and each simulation is a unique experience depending upon the decisions made. The student is encouraged to make sound decisions. Unacceptable transactions result in penalties while poor planning and neglect result in consequences such as fire loss with no insurance or the necessity for a loan due to an unexpected eventuality, etc.

PEDAGOGICAL CONTENT EVALUATION

The use of a simulation to cover the content is appropriate for the target audience. The simulation has educational value and the concepts appear to be suitable; however, the limited scope of content may be restrictive for older students.

There are several aspects of the program that are unrealistic. The restricted number of items that can be purchased and the lack of inclusion of credit card purchases or payments are unrealistic but are likely necessary in order to keep the simulation simple. Their absence is not a signficant weakness. Other situations, such as the high frequency of emergency payments, lost wallets, etc. may be somewhat unrealistic for an eight week period. However, their inclusion is necessary for the intent of the simulation and adds to the program's potential effectiveness.

Other unrealistic situations cause more concern. Purchase prices, mortgage amounts and bank interest amounts do not reflect the Canadian situation (the prices may be more realistic in the U.S.). Also, having a mortgage is unrealistic for a person with such low purchasing power. If the simulation is to be a reasonably accurate picture of a young, single person (as food prices and other clues would indicate), the housing charges should be shown as apartment rent instead of mortgage payments.

The instructions which are available on disk are clear, easy to follow and provide the information required to do the simulation. For many of the decisions required in the simulation, there are no absolute right or wrong answers but the consequences provide useful information to the user for future decisions. The random unexpected events such as car expenses, a lost wallet or a doctor's bill help to sustain student interest in the simulation, but more variation in items to be purchased and the inclusion of such items as clothing purchases or entertainment expenses would enhance the program and make it more realistic.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of name entry, menu selections, pressing RETURN for page turning, making decisions and inputting a response. The decisions involve: paying bills, buying insurance, purchasing an item from a fixed list of six items (prices may change from week to week), selling an item previously purchased, paying an unexpected bill, transferring funds between checking and savings accounts, and making deposits.

Within a simulation, some items remain constant such as regular income while others such as food prices, purchase prices of the items, and unexpected expenditures are randomly selected from a limited data bank. The results of the student's decisions, depending on the consequences, will influence the student's future choices.

Feedback is immediate and follows each transaction by providing information in the cash, checking and saving accounts at the top of the screen. A score card at the end of each week and at the end of the simulation indicates the total money (cash, checking and savings accounts) plus book value of items owned, minus any outstanding bills (may carry 1.5 penalty for unpaid bills). It also provides the total finance points.

The program has no stated criteria for measuring success other than trying to achieve the highest "finance points" at the end of the simulation.

INSTRUCTIONAL FORMAT EVALUATION

The student interaction is appropriate and effective and interest is generally maintained. The simulation appears to promote a keen interest in learning about money management by the test students who used the program. It should be suggested that the user keep records (e.g. budget, purchase prices) in order to fully comprehend the objectives of the simulation. Also, it may have been advantageous for the student to have to keep checkbook balance records. Having the program provide bank balances through each step of the simulation makes the program easy to use; however, this makes the possibility of overdrawn accounts very unlikely and thus the lesson of keeping up to date, accurate checking account records can not be learned.

The questioning sequence is consistent in the simulation with the user being required to make a decision when given a set of options. The decisions made by the user require deductive thinking. It is noted that the program requires unrealistically immediate payment of bills. For example, a student who has learned not to carry too much cash (to avoid loss through the stolen wallet) may quite correctly decide to deposit cash funds immediately after receiving a salary and before paying a bill. Alternatively, the student may be trying to maximize savings account interest by maintaining low balances in the other two accounts, thus requiring bank transactions before any other transaction can occur. If the student has two interactions with the program that do not involve paying the bill (e.g. a fund transfer/deposit followed by a purchase), that bill will disappear from the screen and a charge will be presented for nil payment even though the student was fully intending to pay it after his other banking or payment transactions.

The feedback provided by the changing figures displayed after each transaction at the top of the screen is good. Although feedback is provided weekly and at the end of the simulation, the student is not told whether the total "finance points" are good or poor or whether the individual is a good money manager. The addition of some form of evaluation of the student's money management would be most advantageous. For example, comments on the student's purchases, use of insurance, the presence of late payments, the maintenance of optimal balances in the bank accounts, etc. would promote learning of the desired money management techniques far more quickly. The absence of criteria for measuring the extent of learning and the absence of any record of the simulation (other than total points which do not provide any diagnosis of weaknesses) puts the onus on the teacher to maintain close touch with each student during the program and to provide follow-up activities.

TECHNICAL CHARACTERISTICS DESCRIPTION

Text in upper and lower case letters is presented. Graphics are used to depict items available for purchase and animated graphics are used to illustrate certain events such as salary payment, buying/selling, etc. Color is available and sound is optional.

TECHNICAL CHARACTERISTICS EVALUATION

The technical quality is generally good. The text/graphics screens are satisfactory but the delayed text filling routine is a bit slow as are some of the graphics. Students must wait until everything is on the screen before the program will accept inputs. The animated drawings add to the interest of the program but the depiction of items for purchase are not always clear (e.g. the couch and the piano) and there is no variation in the items, other than cost. Although color is available, the program is effective on a monochrome monitor. The optional sound enhances the animated graphics. The program is user friendly with a clear indication of when and where input is required. The user can exit and begin a simulation again but unfortunately cannot return to the point of exit.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No entry competencies are indicated for this program nor is a management system provided. The documentation includes sections on using the disk, getting the student started, the simulation, action keys and secondary keys, teaching suggestions, inside money manager, special features of the money manager, and twelve sample worksheets for follow-up activities. No other user support materials for students are provided.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although no entry competencies are specified, some of the target audience may need help in understanding such terms as discount, interest, overdraft, book value, etc. It would probably be worthwhile for the teacher to introduce the program and perhaps go through a simulation or work through a sample worksheet with the students.

The inclusion of a management system to record and save student results with some diagnosis of the student's skill as a money manager would enhance the program.

The teacher documentation is good and includes all the features needed to use this program. The inclusion of the sample worksheets is helpful. The program is easy to use and requires minimal teacher assistance and supervision. The program which is very reasonably priced is adaptable to a variety of learning situations and may be used in mathematics life skills or business education.

SUMMATION

The major strength of this program is that content, though limited in scope, is covered effectively and in an interesting way through the use of simulations. The need to use deductive reasoning in making decisions is good. The teacher documentation is concise, clear and easy to follow yet provides sufficient information for the teacher to use the program efficiently. The students can use the program easily with minimal teacher supervision. The reasonable price of the package is also an asset.

The weaknesses in the program are the lack of broader content coverage and the inclusion of prices and charges that are unrealistic for Canadian users and/or for a young consumer. Realism is also lost due to the necessity of keeping the program simple. The inclusion of some evaluation and feedback on the student's overall performance as well as the provision of this kind of record for the teacher would greatly assist the implementation of this program in the classroom.

STATUS

"Money Manager" has been authorized as a **SUPPLEMENTARY** learning resource for Record Keeping 10 and Basic Business 20.

PURCHASE INFORMATION

This program may be purchased for $29.95 US (1986) at the address provided at the beginning of the report. One backup copy of the disk may be purchased for $10.00. A network version of this program is provided by the publisher. The program may be available locally, check with your software dealers.

The publisher will replace defective disks free of charge within 180 days of purchase. Subsequently, damaged or defective disks will be replaced at a cost of $19.95 US.

This disk has the advantage of being capable of operation with more than one machine at a time; however, such use is subject to copyright laws and any license or purchase agreement.

THE NEWSROOM

DESCRIPTION

Title: The Newsroom
Author: None Cited
Publisher: Springboard Software
Source: 7807 Creekridge Circle, Minneapolis, MN 55435
Subject: Language Arts
Topics: Designing, producing & printing a newspaper
Components: 1 master program disk, 1 double-sided clip art disk, user's guide (86p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer, joystick or Koala Pad (optional), modem (optional)
Other Formats Available (not evaluated): IBM PC/PCjr, Commodore 64

Version: 1984
Display Language: English
Cost: $49.95 US (1986)
Tel. #: (612) 944-3912
Users: Grades 4 - 9

OBJECTIVES

This program is designed to assist students in the production and printing of school newspapers.

PEDAGOGICAL CONTENT DESCRIPTION

Although "The Newsroom" is designed primarily to assist students in the production of a newspaper, it can also be used to print letterhead, notices, announcements, banners and logos. The program offers six menu choices:

1. Banner - used to produce titles and headlines.
2. Photo Lab - adds clip art to textual material.
3. Copy Desk - uses a "word processor" to write copy.
4. Layout - used to arrange the panels into an acceptable format.
5. Wire Service - allows for the optional use of a modem.
6. Printing Press - provides hard copy.

The program uses a picture icon command structure (e.g. crayon for write, garbage can for destroy, magnifying glass for enlargement, etc.). The master disk contains 600 graphics (additional graphics can be added with the purchase of "Clip Art" collections) which can be flipped, enlarged or modified. In total five type fonts, available in three styles, can be printed in either large or small type size. However, each panel is limited to two type choices, one small and one large.

PEDAGOGICAL CONTENT EVALUATION

Dividing newspaper production into six distinct components enables students to work with manageable parts. The graphic capabilities are excellent because not only do they offer a wide variety (aliens, beasts, bugs, cats, dogs, holidays, maps, sports, etc.), but many are also offered in cartoon format which adds to student appeal. The use of icons makes the commands easy to remember; however, the program suffers from insufficient explanation of how to implement these commands.

The text capabilities, although limited, are sufficient for most elementary and junior high needs. The program only offers single spacing, although there are definite times when double spacing would be desirable.

Although the "Copy Desk" includes an elementary word processing component, it does not offer many standard features expected in a word processor such as automatic centering, full justification, search and replace or automatic margin recall.

EDITOR DESCRIPTION

Entering and editing text are accomplished in the same mode. The delete key activates deletions by single character, beginning and end markers are used to denote sections for deletion, and entire panels are deleted by activating the garbage can icon. All banners, photos or panels created are saved on a personal data disk for subsequent recall or revision. The program displays only one panel at a time (about 20 lines of print), although 6 to 10 panels will fit on a standard printed page.

EDITOR EVALUATION

The limited options offered by the word processor make the program easy to use. Instructions for saving are vague, more detail should be provided both in the manual and on the disk. Both the garbage can and eraser icons must be pressed twice which is a good safety guard against accidental deletions.

Since banners, photos, panels and pages are saved on separate disks, good student organizational skills are crucial to retrieving the desired information.

TECHNICAL CHARACTERISTICS DESCRIPTION

The optional wire service allows material created by this program to be transmitted over a modem. Users may also opt for joystick control of cursor movement. The layout option provides for the visual placement of panels, but the actual lettering and spacing are not shown. Page format is presented in a double column printed on either standard or legal size paper with up to five panels allowed per column.

The documentation indicates the program is compatible with up to 60 different printers.

TECHNICAL CHARACTERISTICS EVALUATION

A great deal of disk swapping is required, especially for the final stages of layout for printing. Unfortunately a readable screen copy of final layout is not available; only the title of the panel is assigned to a particular space. Users must therefore have a good mental image of proper place of banners, photos and the positioning of panels or over-crowding can result.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The 86 page user's guide is divided into two parts; the first 44 pages include instructions for the operation of the six components of "The Newsroom" as well as relevant samples. The remainder provides suggestions for creating a newspaper.

IMPLEMENTATIONAL SUPPORT EVALUATION

The manual is well-organized but does not provide sufficient detail, thus many of the operations need to be learned by the frustrating process of trial and error.

SUMMATION

"The Newsroom" offers a wide variety of applications for the classroom and would be especially appropriate for upper elementary/junior high use. It adds realism to the production of a school newspaper, it encourages creativity in poster displays, and it offers a nice contrast to type displays. The use of icons makes the command structure easy to learn and the program offers a good range of graphics to supplement textual material.

The sketchy operating instructions necessitate a considerable initial investment of time in order to become familiar with all aspects of program operation. Also, the organization of data on personal disks demands planning, a skill which teachers will need to emphasize.

STATUS

"The Newsroom" has been authorized as a SUPPLEMENTARY learning resource for grades 4 to 9.

PURCHASE INFORMATION

This product is available for $49.95 US (1986) from Springboard Software at the address provided at the beginning of this report. The program may also be available locally, check with your software dealers.

Defective disks will be replaced free of charge within a 30 day warranty period. Subsequently, defective disks will be replaced by sending the original product and $5.00 to the publisher provided that an extended warranty card has been filed.

Due to frequent disk interaction, this disk may be used with only one machine at a time.

POWER-BASE

DESCRIPTION

Title: Power-Base
Authors: None Cited
Publisher: PowerBase Systems Inc.
Source: c/o Compuware Corp, 32100 Telegraph Rd, Birmingham, MI 48101
Subjects: Business Education
Topics: Data Base Management
Version: 2.3
Display Language: English
Cost: LRDC Buyer's Guide
Tel. #: (313) 540-0400
Users: Grades 10 - 12
Components: 5 disks (install & applications, start, use, define, utilities, user's manual (641 p.), function keyboard template, quick reference guide
System Requirements: IBM PC/XT/AT, PC-DOS 2.0 or later, 320K RAM, dual floppy drives or a floppy drive and hard disk system, monitor, printer
Other Formats Available (not evaluated): IBM compatibles

OBJECTIVES

"Power-Base" is a data base management system designed to introduce uses and applications in a business setting.

DATA INPUT AND SETUP: DESCRIPTION

The program's use of an 80 column screen format permits exact hard copy printouts. Individual fields, established by the user, may be alphanumeric (default 20, max. 80), numeric (default 8, max. 15), or "yes,no" field displays. Records can contain up to 1600 characters, a maximum of 64 data fields, and 50 text-only fields. The program supports calculated fields and up to 53 look-up fields per file (where values from other files or records are imported). However, it does not provide for automatic record number increments. Records may be automatically stored during the entry process by pressing the return key, or the user may select different options to allow for edit or temporary modification of the fields. Pressing the "done" key provides for a permanent save and the file is automatically marked with the time and date.

To aid in error trapping, the user can define a range for a given field and the computer will provide an error prompt if a given input is outside this range. Use of the escape key permits the user to back up in the program for editing purposes and the start-over command provides for a complete erase of information entered on the current screen.

When inloading records from an external file, if one or more fields contain invalid data, the entire record will be rejected and copied to an error file. A reason file is also created which provides the reason for the rejection. The error and reason files must be reviewed outside of "Power-Base".

The program provides five scan options: first, next, previous, last and go to.

DATA INPUT AND SETUP: EVALUATION

The use of menus and command trees makes file set-up very easy and logical. The program offers excellent flexibility in field definition; however, when re-defining a field the user must be aware that a data field cannot be changed to a text field or vice versa. Good editing options allow for efficient modification of records and easy additions, deletions, or rearrangement of records. Data entry with menu selection for automatic save and advance to the next record make the program easy to operate for the beginner.

On the negative side, the look-up function allows only single field comparisons with resultant data interchange from a second field. While this is probably adequate for most high school applications, there are times when one might wish to compare the values in two or more fields before importing or interchanging data from a third field.

SEARCHING AND EDITING PROCEDURES: DESCRIPTION

The selection of criteria for file query allows for the use of the operators equal, greater than, less than or not equal to which may be combined with the logical operators of AND, OR, and NOT as required. Searches may be conducted using either full field or partial field criteria, and records may be sent to the screen or to the printer. Each record is designed to represent one page; if more than one page is required, secondary files must be established and the zoom-link function of the program invoked. Indexes are automatically updated with the addition of records. The program offers global erase or replace of the values in any stored field without having to edit each record.

Sorting, unless otherwise defined, is based upon the field in the record design that is in the uppermost left hand corner. However, the user may choose to select up to six fields as an index of the file. All field sorts are considered to be primary in nature and give ascending order only, but descending order is available in the report or label sorts.

SEARCHING AND EDITING PROCEDURES: EVALUATION

The use of a command tree and structured menu makes searches for specific records very easy. Two uniquely positive features offered by this program are the search and select by example and the zoom-link which allows the user to link field values of up to ten different files.

Editing of individual records is fairly easy to accomplish; however, it would be nice if the cursor remained on the field being edited as the records are paged through rather than returning to the first field. While the indexing system which allows for only ascending sorts and primary keys is probably all that is required for high school applications, this would likely prove limiting for serious business applications. The inability to delete duplicate records and the lack of an automatic record count are definite deficiencies of this program. Also, this program does not appear to enable files to be copied with only selected field(s) criteria being in the new file. For simple applications it is easy to manually edit or delete the undesired records, but large business applications would require a more efficient method.

REPORT GENERATION: DESCRIPTION

Reports can consist of data from a file, a file subset, or a series of files connected by zoom-links. The report generator offers the built-in functions of total, sub-total and record count. Vertical column total and sub-totals are supported with horizontal totals if a calculation field is defined. Contrarily, columns may be moved horizontally, but not vertically.

Default values for all reports, which include all columns of the file, are established during the file format creation process and are stored as a master default from which the user must eliminate/rearrange as desired. The maximum report width is 132 characters, with the specific paper length, width, characters per inch, margins, etc. established during the installation process. Reports may be printed to screen with cursor control keys being used to examine sections greater than 80 columns wide. Headers and footers are limited to about 8 lines and are printed on each page of the report. Control codes can be included within the header/footer to provide special printer instructions (line feed, condensed print, etc.).

Printed labels can be produced be defining selected fields from records in a file.

REPORT GENERATION: EVALUATION

"Power-Base" permits report features to be easily customized and the default method of presenting a master report form makes the generation of straightforward reports very easy indeed. The ability to do primary or secondary key sorts allows generation of very user specific reports. Furthermore, having the ability to rearrange columns and print to screen (using a toggle for lengths greater than 80 columns) gives the user a great deal of flexibility in examining a report before it is printed to paper. The option of test printing of labels is also very helpful.

On the negative side, the lack of horizontal totals and sub-totals without field creation detracts from the program's overall quality, and not being able to rearrange column locations vertically may be a handicap. Users must also be aware that equations used to derive values must be inserted for clarification in either the headers/footers of the report, since there appears to be no way to put text in the report body for clarification purposes.

FILE STRUCTURE AND MAINTENANCE: DESCRIPTION

File names can contain 1 - 8 characters. Each file can handle up to 65,534 records. Program disks are not copy protected, thus back-ups can be made using MS-DOS. "Are you sure?" prompts guard against accidental record deletion.

"Power-Base" allows the user to enter data into an application in one of thirteen languages. It will sort data according to the language and print currency symbols, date and time, and decimal and thousand separators according to the rules of the nation selected.

The outload/inload functions of the program enable it to merge and interchange text with various other databases, word processing and spreadsheet programs such as dBase II, dBase III, dBase III+, DIF files, PFS, Lotus, Symphony, Multiplan, Multimate, Wordstar, WordPerfect and Wang Word Processors. "Power-Base" does not offer graphic capabilities.

FILE STRUCTURE AND MAINTENANCE: EVALUATION

The built-in double checks for deletion of records and purge of files is a definite program strength in preventing operator errors. The ability to exchange data with other programs, with or without identical formats, is another program plus. Password security is available, but differentiated levels of security (for data entry, read only, etc.) are not supported.

"Power-Base" does not offer any form of programming language, this omission would be missed by advanced users for specialized applications.

IMPLEMENTATIONAL SUPPORT: DESCRIPTION

The manual is divided into seven sections: tutorial, overview, advanced topics, applications, commands, appendices, and a glossary. The tutorial corresponds with sample data files contained on the program disk. Ten step-by-step lessons are used to present "Power-Base" fundamentals. The applications sections of the program disk includes templates for an electronic phone directory, a stock tracking system, and an invoice tracking system.

The program operates on five diskettes: install and applications, start, use, define, and utilities. A quick reference card, function key template, "Read this First" pamphlet, and eight labels are included in the package.

IMPLEMENTATIONAL SUPPORT: EVALUATION

The documentation is well-organized and generally thorough. The overview section provides a good overview for experienced users. The menu command tree provides clarity to related operations. Provided the "Read Me First" document is followed, installation and set-up are quick and uncomplicated.

SUMMARY

"Power-Base's" logical menus and branched command structure make it an easy program to use. It offers powerful date transfer, relative ease of form design, and good report customizing features. The presentation of safety check questions and the use of the escape key to enable back-up within the program are useful features for classroom instruction.

"Power-Base" is an excellent data management tool for business applications that use a single linear type of structure. As the number of records increase and the complexity of applications increases however, several weaknesses may become apparent. These include: the lack of a programming language, the inability to delete duplicate records, the fact that the look-up function does not support two or more conditional fields, and the lack of primary and secondary indexes in both ascending and descending order for files.

STATUS

"Power-Base" has been authorized as a BASIC learning resource for grades 10 to 12.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distributing Centre for an approximate package price of $254.00 less a 15% educational discount and an additional 25% subsidy discount.

The warranty period to LRDC customers is 12 months from the date of sale. Upgrades (at cost) and warranty replacements for defective disks can be obtained from Compuware at the address provided at the beginning of the report. Technical support is available to registered customers at (313) 540-3706.

REFLEX: THE ANALYST

DESCRIPTION

Title: Reflex: The Analyst
Authors: None Cited
Publisher: Borland International
Source: 4585 Scotts Valley Drive, Scotts Valley, CA 95066
Subjects: Business Education
Topics: Data base management
Components: 3 disks, user's guide (488p.), keyboard template
System Requirements: IBM PC/XT/AT, PC-DOS 2.0 or later, 384K RAM, dual floppy drives or a floppy drive and hard disk, system, IBM color/graphics adapter or Hercules monochrome graphics card, printer, mouse (optional)
Other Formats Available (not evaluated): IBM compatibles

Version: 1.12
Display Language: English
Cost: LRDC Buyer's Guide
Tel. #: (408) 438-8400
Users: Grades 10 - 12

OBJECTIVES

"Reflex" is a data base program designed to allow the user the flexibility of filing, sorting, information retrieval, statistical analysis, graphics and report writing.

DATA INPUT AND SETUP: DESCRIPTION

"Reflex" offers integrated data base, graphics, and statistics programs and a separate report writer module. It allows up to 65,534 records per file with a maximum of 250 fields per record. The maximum number of characters per record is 32,512 and the maximum number of characters per field is 254. Fields may be user defined as text, numerical (integer, currency, financial), calculated value or date. Field names may be up to 72 characters long.

This program allows data base entry in either form entry mode or list entry mode. Date and time for each file is saved in the DOS directory each time the file is saved.

DATA INPUT AND SETUP: EVALUATION

The pull down menus make the program easy to use and provide information on the amount of memory available for data, field names and types plus the degree of precision required for numbers. The fact that these stats may be altered by the user (within limits) provides good flexibility. The concept of a blank screen which allows the user flexibility in the location of fields and field names makes initial set-up extremely easy. The choice of form or list creation is a program plus; the list mode is particularly helpful in allowing the user to see what previous records contained. Two windows are available to permit simultaneous viewing of two files or portions of a file. In the event of faulty data entry on screen, prompts are given and the cursor is moved to the error location.

Two deficiencies in data set-up were noted. First, it is possible to add or edit records in the data base and exit the program without saving the results. A user prompt to guard against failure to save would be appropriate. Second, the process of merging files is cumbersome. The program is a file manager and not a true relational data base. In order for data bases to be merged they must have the same field name and fields must have been created in the same order in order to allow a successful merge. Alternately, a dummy file may be created with fields in the second file rearranged to match those of the first file.

SEARCHING AND EDITING PROCEDURES: DESCRIPTION

To initiate a search, the user calls up the search routine from main menu and fills in the blanks with the selection criteria for each field (less, greater, equal, etc.). Searches may be done for full fields or parts of a field for exact or partial matches. The user may invoke a filter which causes only those records that satisfy the search criteria to be displayed.

"Reflex" will handle ascending and descending sorts on the primary field as well as any other fields in the file (up to 5 per sort). Changes to fields may be done at any time using the form editing function.

Each record is patterned to cover a 500 line by 500 column grid with the up and down page cursor keys providing vertical movement and the right and left arrow keys providing horizontal movement. Mouse control is also offered.

SEARCHING AND EDITING PROCEDURES: EVALUATION

The fill-in-the-blank search screen makes the process of setting up a search extremely easy. Since the entire program and its data base are resident in RAM, it can perform sorting very rapidly. The trade-off, of course, is that the size of the data base is limited by the size of memory.

The ability to call for screen help at any point is excellent. The choice of editing a record using either the form or the list mode is excellent.

REPORT GENERATION: DESCRIPTION

The report generator offers excellent options in selecting an introduction, headers, footers, and conclusion. The body of the report can be designed by specifying criteria or the use of pull down menus. Margins of 1 - 255 characters in length are supported with the number of lines per page ranging from 1 - 200. Reports may be viewed on the screen with 80 characters shown and horizontal scrolling is provided by the arrow keys.

The built-in functions of the report generation module include count, minimum, maximum, sum, average, percentage of total, variance, and standard deviation, along with date functions. In addition the cumulative function permits conditional summations based upon field values and conditions. Test conditions can be applied to records via a user designed filter; subsequent reports will be based only upon those records that fit the filter criteria.

By entering formulas, if/then statements and case statements, computer fields can be generated. Both horizontal and vertical sub-totals and totals are provided and calculations may be carried from record to record. Automatic decimal point alignment is offered.

REPORT GENERATION: EVALUATION

The report generator is easy to use and extremely flexible in the positioning of fields within the constraints of the report format. The ability to print to screen and print partially prepared reports is an excellent editing feature as is the ability to hard print only portions of the report.

The chief drawback of the report generator is that it is a separate module from the rest of the program and must be run from DOS on its own. Besides the inconvenience of having to leave the data base module to get into the report writer, it appears to be impossible to integrate graphics within the report.

FILE STRUCTURE AND MAINTENANCE: DESCRIPTION

Program disks can be backed up using the DOS commands. Record deletion can be performed by single record, single criteria, or total records (leaving the record form intact). "Reflex" offers interface via file translation with Lotus 1-2-3, Symphony, Dbase II and III, PFS or DIF files. Standard ASCII text files formatted according to certain restraints can also be imported and translated into "Reflex".

"Reflex" offers a graphics function which produces scatter, line, bar, cumulative bar and pie graphs based upon information from records in the data base. An interactive analysis mode depicts in chart form the underlying detail of selected points on the graph.

Additional functions include a vary function, which allows the user to vary the conditions of a field and observe the results, and a crosstab function which permits the creation of tabular summation of data within categories defined by the user.

FILE STRUCTURE AND MAINTENANCE: EVALUATION

File maintenance procedures are effective; however, program strength could be improved by the addition of an "Are You Sure" prompt prior to individual file deletion and some form of automatic checking for duplicate records (currently this must be done manually). Good interface ability is offered for imported files. The crosstab function provides a powerful method of making calculations and comparisons using any one of 56 built-in functions.

IMPLEMENTATIONAL SUPPORT: DESCRIPTION

The user manual is divided into subsections: an introduction to databases, an overview of commands, a basic tutorial, an advanced tutorial, a reference section, an appendix and an index. The tutorials are designed to be used in conjunction with disk based files which demonstrate most of the basic functions of the program.

IMPLEMENTATIONAL SUPPORT: EVALUATION

Edge coding of the reference manual facilitates quick look-ups. The tutorials are well-designed presenting objectives for each section, a theory section, a practical application and a summary of main points. The writing style is geared to a user with little computer experience. The breakdown of the manual into sections enables students to use only the parts of the data base required for a single application while ignoring other commands. This shortens initial learning time.

SUMMATION

"Reflex's" well-organized tutorial, its excellent on-screen help, and the use of pull-down menus combine to make the program easy to learn and operate. The option of form or list viewing for both data entry and editing is a program strength as is the ability to design and print reports as a series of small modules.

The program's chief drawbacks are the lack of linking between the file management functions and the report function, the inability to merge and join files with different field arrangements without creating a new file, and the lack of program checks to prevent the accidental deletion of files.

STATUS

"Reflex: The Analyst" has been authorized as a BASIC learning resource for grades 10 to 12.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distributing Centre for an approximate package price of $85.00 less a 15% educational discount and an additional 25% subsidy discount.

Defective disks and documentation will be replaced free of charge by Borland International provided they are notified of defects within a 60 day (from date of purchase) warranty period.

SOLVING FRACTIONAL EQUATIONS

DESCRIPTION

Title: Solving Fractional Equations
Authors: Don Ross & Mark Appel
Publisher: Microcomputer Workshops
Source: c/o CBS Interactive Learning, One Fawcett Place, Greenwich, CT 06836
Subject: Mathematics
Topics: Solving fractional equations with one variable
Components: 1 disk with backup, teacher's guide (6p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer (optional)
Other Formats Available (not evaluated): Available only in Apple format

Version: 1985
Display Language: English
Cost: $29.95 US (1986)
Tel. #: (203) 622-2771
Users: Grades 10 - 12

OBJECTIVES

This program is designed to give students practice in solving fractional equations with one variable, using the axioms of addition, subtraction, multiplication and division. It also provides teachers and students with the opportunity to create individualized tests of up to twelve problems.

PEDAGOGICAL CONTENT DESCRIPTION

The program provides the users with the opportunity to practice solving randomly generated fractional linear equations containing either one or two fractional terms on each side. Fractional terms are in the form of A/X or X/B.

The program consists of three parts:

1. INSTRUCTIONS: The instructions explain how to use the program and include the solution path of a sample problem.
2. PROBLEMS: The user has two difficulty levels to choose from. In the easy level, the variable is found in the numerator of the fraction; while in the hard level, the variable is in the denominator. The solution to each equation requires the use of procedural rules which have been listed. Using the screen as a worksheet, the student solves the equation in a step-by-step manner which is constantly updated as progress toward the solution is made. A summary of errors is given for each problem and a total error summary is provided at the end of the problems. The user has the option of printing the error summary and the solution steps of the problem solved.
3. TEST GENERATOR: The CREATE A TEST option allows the teacher or student to create a classroom test of up to 12 problems, or print questions selected from easy and/or hard problems. The answers are also provided on a separate sheet.

PEDAGOGICAL CONTENT EVALUATION

The range of content is appropriate for most of the target audience; however, there is insufficient scope of content for some grade eleven and most grade twelve students unless it is used for remediation. The provision of two levels of difficulty is advantageous but the teacher should note that the program contains only simple fractions and does not progress into terms such as 1/(X-6).

The highly structured step-by-step techniques used in this program are thorough and good for students requiring this type of format; however, this approach may become tedious for brighter students who wish to use shorter or different procedures. Although the program recognizes some alternate methods that may be used in the solutions, no shortcuts may be used. The depth of this program is satisfactory in that the user can get as much practice as desired.

Although the content is accurate, the use of slashes in fractions may initially cause some confusion. The use of large characters for brackets is also awkward.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of name entry, menu selection, choosing the level of difficulty (easy or hard), choosing a procedural rule to follow, and carrying out the calculations required in each step of the solution. The interaction in the INSTRUCTIONS consist primarily of page turning using RETURN and inputting answers which are provided in the sample problem. R is pressed to reread a previous page.

All of the questions in the the practice and test portions are randomly generated.

A variety of feedback techniques exist in this program. Correct responses result in positive textual reinforcement throughout the problem solving process. An incorrect choice of a procedural rule is followed by an explanation of why it is incorrect. If a student makes a mistake (other than choosing a rule) twice, the correct answer will be provided. An error summary is provided after each problem and a total error analysis appears at the end of each set of problems. A printout is available. There are no pre- or post-tests included in this program.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is generally easy, consistent and appropriate with the student being actively involved in each problem solving step. However, in the INSTRUCTIONS portion, it would be more effective to have active student interaction rather than so much page turning. Although the instructional technique using a highly structured format can be an effective learning approach, the effectiveness of this approach for brighter students may be questionable. The random generation of problems is effective.

Feedback is immediate, appropriate and is provided at each step throughout the problem solving process. The explanations that are part of the negative feedback are advantageous. The inclusion of the error analysis with a printout option is an asset.

TECHNICAL CHARACTERISTICS DESCRIPTION

The text is presented in standard size and uses both upper and lower case letters. Sound, colour and graphics (other than title page) are not used in the program.

TECHNICAL CHARACTERISTICS EVALUATION

The displays are generally clear and readable. However, the test generating program does not allow enough space between the last number of the question and the answer. Clarity could be improved by providing more space. The use of characters for large brackets is awkward and could be improved. Perhaps the use of flash or inverse to draw attention to a part of the equation being dealt with would add to the effectiveness of the program.

The program is easy to use and appears to be reliable under normal use.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No specific entry competencies are listed in the documentation. There are no user support materials or a management system included in this program. Special features include a complete error analysis which may be printed, an option to print all steps in the solution, and an option to print sets of questions. There is no provision for records to be kept on the disk.

The documentation includes the program objectives, a program description and its sequence, an explanation of the error analysis procedure, information on the test generator and disk loading instructions.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although no entry competencies are specified, it is assumed that the students will have instruction in solving fractional equations prior to using the program.

A printout of the error analysis is available. Unfortunately, there is no management system to update and keep track of the information on the disk.

The teacher documentation is concise, easy to follow and provides sufficient information to use the program without difficulty. The program will require minimal computer competency and teacher supervision.

SUMMATION

The major strengths of the program are the structured approach to solving fractional equations, the ease of use, good student interaction in the problem solving section, effective randomization of problems, and a test generator which can be used for making and printing tests.

It is unfortunate that the program does not allow more flexibility in the solutions to problems which would allow brighter students to use shorter procedures. The inclusion of a management system would enhance the program.

STATUS

"Solving Fractional Equations" has been authorized as a **SUPPLEMENTARY** learning resource for Mathematics 10, 13 and 23.

PURCHASE INFORMATION

This product may be purchased for $29.95 US (1986) at the address provided at the beginning of this report. Lab packs, consisting of the teacher's guide, one disk with backup plus nine additional disks, are available for $89.95 US (1986). Bulk purchase discounts are provided by CBS Interactive Learning with the discount dependent upon the number of units bought. This product may also be available locally, check with your software dealer.

Defective disks will be replaced at no charge within 90 days of purchase. Within one year of invoice date, defective disks will be replaced (on a one-time-only basis) for a fee of $5.00. Disks damaged by users can be replaced at a cost of $15.00 per disk.

As the disk is accessed with each return to the main menu, a disk may be used with only one computer at a time.

SPELL IT!

DESCRIPTION

Title: Spell It!
Authors: Janice Davidson & Richard Eckert
Publisher: Davidson & Associates Inc.
Source: 3135 Kashiwa Street, Torrance, CA 90505
Subject: Language Arts
Topics: Review of spelling rules, provision of a format for learning to spell new words
Components: 1 program disk, 1 data disk, teacher's guide (65p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer (optional)
Other Formats Available (not evaluated): IBM PC, Commodore 64/128, Atari

Version: 1984
Display Language: English
Cost: $49.95 US (1986)
Tel. #: (213) 534-4070
Users: Grades 4 - 9

OBJECTIVES

This program is designed to review spelling rules as well as provide an effective format for making spelling easy and fun.

PEDAGOGICAL CONTENT DESCRIPTION

This program consists of four activities which review spelling rules, study the words in syllables, use the words in sentences and help distinguish correctly spelled words from misspelled ones. The program focuses on 1000 commonly misspelled words which are grouped into five levels beginning with Novice and extending to the Grand Master level. Within each level, there are ten sets of twenty words which increase in difficulty. The editor allows the teacher to create word lists for all activities.

The four activities included in the program are:

1. SEE IT: A whole word is presented and then it is syllabicated. A sentence with a missing word appears. Once the student feels he or she knows how to spell the word, the space bar is pressed, the word and syllables will disappear, and the student types the word into the blank.
2. PRACTICE IT: This activity tests the student on the words that have been learned. The spelling words appear briefly (display time may be from 0.25 to 5 seconds) and the student is expected to type the word correctly in the sentence. The word should appear on the screen just long enough for the student to recognize the word.
3. UNSCRAMBLE IT: This is a game for one or two players. The student chooses one of nine boxes and the scrambled letters that belong in the box appear at the top of the screen. Students earn points for each word which is successfully unscrambled.
4. SPELL IT!: This is an arcade type game which is played individually at one of three speeds. The student aims a frog at one of four spellings of the same word using arrow keys or a joystick and Z key. If the word is correct, the frog zaps the word. The object of the game is to zap as many words as possible within the time limit and gain more points.

At the conclusion of the "See It" and "Practice It" activities, the student has the option of retaking any word missed. An optional on-screen demonstration of activities is provided.

PEDAGOGICAL CONTENT EVALUATION

The range, sequence and depth of content are appropriate for the target audience. Users have a significant amount of control over this program and the editor feature allows the teacher to customize the program by creating his or her own word lists. The arcade type game adds interest and motivation to the learning process. The sequential development from easy to difficult from one level to the next is effective and provides practice using easy to very challenging words. It would be helpful to have a spelling rule or generalization for every list instead of only the first five lists in each level.

The content is accurate and free of bias. The general readability is appropriate and content is presented in a clear and interesting manner. The content is suited to the medium.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of selecting the menu, selecting the level of difficulty, inputting spelling words, using arrow keys or joystick and Z key for the movement of the frog, and using ESC, SPACE BAR and RETURN keys.

The questions are randomly generated except in "See It" where the questions are in a fixed order. The questions are either program or teacher created. Feedback is provided in all activities with correct responses receiving a short congratulatory message and optional audio reinforcement or receiving points when in the game format. In "See It" the student must revise the incorrect spellings until the words are spelled correctly. In the other activities, generally after two incorrect tries, the correct answer is provided. Quantitative feedback provides a percentage score in two of the activities and a cumulative score for the other two.

No branching is provided but a user has the option of repeating items missed in "See It" and "Practice It". The user has a great deal of control over the program by choosing the difficulty level and word set; choosing options which include sound, speed, joystick, repetition of missed items; and by creating or printing word lists.

INSTRUCTIONAL FORMAT EVALUATION

The student interacts actively and easily with the program. A variety of formats, especially the games, provide interest and motivation to make learning fun. The number of times and the varying ways in which the students manipulate the content words strengthen the program.

The feedback is appropriate with the audio option being a good feature. The quantitative feedback provides some useful information and is easy to access even if a student doesn't complete a word set. The print option, though limited, is helpful. User control of the program is very good and the editor feature which allows the teacher to create word lists is an asset to the program.

Although the documentation suggests a type of informal evaluation for initial placement in the program, pre- and post-tests would be useful.

TECHNICAL CHARACTERISTICS DESCRIPTION

Text is presented in upper and lower case letters with the option of regular or bold face type. Color, graphics and optional sound are included in the program. The print option is available to make hard copies of customized word lists.

TECHNICAL CHARACTERISTICS EVALUATION

The displays are well designed and easy to read with appropriate font and character size. Color and graphics add to the effectiveness of the game format; however, color is not essential. Flash and inverse are used effectively. Inputs are clearly requested but are often limited to the correct number of characters which provides a hint to the user. The program is easy to use and appears to be bomb-proof under normal use.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No management system for recordkeeping is provided in the program, but an editor which enables the teacher to create word lists is included.

The teacher documentation includes an introduction, instructions for program use, descriptions of each activity, directions for using the editor and a glossary of the words on the data disk. No user support materials are included.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although the editor feature adds a great deal of strength to the program, it is noted that time will be required to plan and create the word lists. One analyst indicated some difficulty in setting up and using the editor. Another analyst found it awkward initially, but it was easy to use after some practice. The documentation is generally well organized and easy to use; perhaps, the procedures for creating lists could be clarified. The program can be implemented easily in a classroom setting and is adaptable to a variety of learning situations. The program is easy to use and little teacher supervision will be required.

APPLE - IBM VERSIONS

This report has been based on an evaluation of the Apple version. A review of the IBM version revealed identical content and only minor technical differences due to the differences in the operating systems of the two machines.

SUMMATION

This program provides spelling practice in a variety of instructional formats which are effective in providing an interesting and motivational learning experience for the students. The program is well designed and easy to use with the students being actively involved. Although teacher time is required, the editor provides the teacher with an excellent opportunity to customize the program and expand its scope. The lack of a pre- and post-tests and lack of a management system may be considered weaknesses.

STATUS

The Apple and IBM versions of "Spell It!" has been authorized as a **SUPPLEMENTARY** learning resource for grades 4 - 9.

PURCHASE INFORMATION

This product may be purchased for $49.95 US (1986) at the address provided at the beginning of this report. A backup copy of the program disk is available from the publisher for $10.00 US with a receipt of the purchase warranty card. "Spell It!" may also be available locally, check with your software dealers.

Davidson & Associates provide a one-year warranty and replacement service for defective disks if the buyer returns the disk with proof of purchase.

The disks have the advantage of being capable of operation with more than one machine at a time provided that only one activity is accessed; however, such use is subject to copyright laws and any license or purchase agreement.

SUBJECT—VERB AGREEMENT

DESCRIPTION

Title: Subject - Verb Agreement
Authors: Doug Higgins, Pat Brzozowski & Joseph Stampleman
Publisher: Microcomputer Workshops
Source: c/o CBS Interactive Learning, One Fawcett Place, Greenwich, CT 06836-9990
Subject: Language Arts
Topics: Subject - verb agreement rules
Components: 1 disk with backup, teacher's guide (11p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer (optional)
Other Formats Available (not evaluated): Available only in Apple format

Version: 1984
Display Language: English
Cost: $49.95 US (1986)
Tel. #: (203) 622-2771
Users: Grade 6

OBJECTIVES

This program is designed to help students master problems concerning subject-verb agreement.

PEDAGOGICAL CONTENT DESCRIPTION

This program is intended to assist students who have problems with subject and verb agreement by covering eighteen agreement rules and providing practice with an unlimited number of problem sentences. The program is divided into six parts, five of which are designed for the student and the sixth for the teacher to personalize the sentences with familiar names and places. Each part has instructions included in the program.

"Study Singular and Plural Verb Forms" should be done first. This section is designed to help the student find the part of a verb that carries the idea of singularity or plurality.

"Study a Rule" has three parts: the first part verifies the rule selected by the student, the second part provides sentences to illustrate the rule and the third part requires the student to correct a sentence by applying the rule.

In "Do an Exercise" the student is given the opportunity to do one of three types of exercises, each consisting of ten problems. In the first type of exercise the student is to locate the subject and then decide if the verb and the subject agree. If they do not agree, the correct verb must be supplied. In the second exercise, the student must identify both the verb and subject and if the agreement is faulty, he or she must supply the correct verb. In the third exercise, the student selects the number of a rule heading and the problems are generated randomly based on all the rules up through the one chosen. After completing an exercise, the student receives an analysis of his or her performance.

A diagnostic test composed of eighteen randomly generated problems is provided to help determine specific areas of difficulty. The last section of the program provides a review of all rules without sample problems or exercises. The student may repeat any part of the program as often as desired.

The content is accurate, with the exception of one spelling error and one or two punctuation omissions. It is noted that the program uses word lists to generate the problem sentences and some absurdities result. The sentences, other than the subject/verb agreement, are grammatically correct.

PEDAGOGICAL CONTENT EVALUATION

The range and sequence of content are appropriate for the target audience. Sufficient content is covered to achieve the intents of the program with the exercises being completed well within the attention span of the users. The size of increments in the sequence is appropriate and effective. It is suggested that the user move from the easier to the more abstract/difficult rules; however, the sequence is user controlled. The tutorial portion of the program is very good in that as many examples as are required by the individual student to grasp the concept are provided, but only one example question is given as a follow up. The program provides an unlimited amount of practice using randomly generated problems in the exercise portion of the program, but it is unfortunate that only the present tense is used. Definitions and explanations are not always available when necessary and they rely heavily on pattern recognition. The diagnostic test is an asset and aids greatly in determining the areas in which the student needs additional drill and practice. The vocabulary, sentence length, quality of text and general readability are appropriate; however, some of the terminolgy may be too difficult for grade six students or may not be in complete accord with that taught. It is noted that "a","an" and "the" are treated as adjectives rather than articles. The deviations are not major and should not pose a serious problem. Some students may be confused by the absurd sentence constructions but the images thus created are interesting and motivating. The teacher can also personalize names and places in the sentences to add interest.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of: menu selection, using the space bar and return key to advance the program and to turn pages, using arrow keys to move the highligted subject or verb, and inputting the correct words to complete a sentence.

Questions are selected randomly from what appears to be an almost unlimited data bank. In the practice activities, a correct response results in a brief congratulatory message while an incorrect response results in a short "Sorry" message, an explantion of why the response is wrong and what to look for in order to make a correct response. The program does not provide the answer except when asking if there are any more subjects or verbs in the sentence. Quantitative feedback is provided in the analysis section at the end of the exercise. It shows the number right out of the number of tries, the number of verbs supplied, the number of verbs located and the number of subjects located. The quantitative feedback in the diagnostic test and in the random exercises consists of an analysis by rule.

The diagnostic test can be used as a pre- or post-test. The test is available at any time for the student as a quiz on any combination of the eighteen rules presented in the program. No branches are available in this program.

The sequence is initially user controlled, but once a choice of menu has been made, the sequence is program controlled. The amount is program controlled with the provision of ten exercise problems or eighteen test questions but the number of examples in the tutorial is limitless.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction with the program is appropriate with the student actively participating. This program is not tolerant of spelling variations in student inputs. Moreover, the student may sometimes be confused as to whether the SPACE BAR or RETURN should be used to advance the program. Often the user will hit RETURN twice thus incorrectly moving from a 'continuous page' to an 'answer input'.

Questioning techniques in this program are appropriate and effective for the content. A good feature of "Study a Rule" is that, after a rule has been presented and the student views examples, the program then requests the student apply what has been illustrated by correcting a sentence using the rule. However, it is noted that this program is somewhat mechanical and relies on the pattern recognition model and rules.

Feedback is generally appropriate and effective for the target audience. User inputs are immediately evaluated and reinforced or corrected. An excellent feature of the negative feedback is that it promotes learning by explaining why a response is incorrect and by suggesting clues to the student to enable her/him to make a correct response. However, the feedback is not personalized and some of it is repetitive and may become a bit boring. Quantitative feedback is readily available in both practice and testing situations and generally provides useful information.

The diagnostic test is an asset in that it quickly assesses strengths and weaknesses and provides useful information to the teacher; however, more questions would be beneficial. This test can be used effectively as a pre- or post-test.

TECHNICAL CHARACTERISTICS DESCRIPTION

Textual information is presented in upper and lower case print. Titles, correct answers and interaction requests are highlighted. There is no use of color, sound or graphics in program.

TECHNICAL CHARACTERISTICS EVALUATION

The displays are effective and easy to read with appropriate size print and well spaced sentences. Most displays are free of errors and contain a suitable amount of material; however, a spelling error was noted with "lunchs" (Rule 3) and periods were left out in Menu Option I. The menu display for all eighteen rules is crowded. The two pages which are part of the "forward" appear everytime the program is booted. They do not add the the usefulness of the program and waste student time. Highlighting is effective. The program has not made use of color, graphics, or sound; perhaps the use of some of these capabilities may have added more interest to this program. Students can easily and independently operate this program. The program appears to be reliable except that it hangs up with CONTROL-RESET instead of re-booting.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No special competencies are required but students need to be familiar with basic grammatical terms associated with subject/verb agreement. It is noted that this program does not purport to teach grammar; rather, it is intended to help a student to master the subject/verb agreement and to give practice in using it.

No management system is included in this program. A printer can be used to retain quantitative feedback from the practice exercises and the diagnostic drills. The teacher can access the Word Editor to change names of people or places.

The teacher documentation includes the objectives, description of the program, sequence and classroom use. The section on sequence contains information on each of the five student portions of the program and the teacher Word Editor. No other user support materials are included.

IMPLEMENTATIONAL SUPPORT EVALUATION

It is important for the teacher to ensure that the students understand the nature and logic of subject/verb agreement before this program can be used effectively.

A management system to automatically store student results, to provide a print option to include individual or group results, to allow the teacher to specify the areas the student is required to do and then test only those areas would enhance this program.

The teacher documentation is clear and easy to follow but the suggestions for the classroom are weak. Including user support materials would be an additional benefit in the program.

The program is easy to implement and to use with students in a regular or a remedial classroom, but it is most suitable for use with one student at the time. Little teacher supervision should be required.

SUMMATION

The major strength of this program is the tutorial and the abundance of practice which it provides to assist students to master the concept of subject/verb agreement. Interesting sentences, sometimes nonsensical, are created by randomly generating sentences from data banks to provide limitless practice. The program is generally well designed and easy to use.The inclusion of a diagnostic test is an asset.

The major weaknesses of the program is the lack of a management system and the lack of teacher control.

STATUS

"Subject-Verb Agreement" has been authorized as a **SUPPLEMENTARY** learning resource for grade 6.

PURCHASE INFORMATION

This product may be purchased for $49.95 US (1986) at the address provided at the beginning of this report. Lab paks, consisting of the teacher's guide, one disk with backup plus nine additional disks, are available for $149.85 US (1986). Bulk purchase discounts are provided by CBS Interactive Learning with the discount dependent on the number of units bought. This product may also be available locally, check with your software dealer.

Defective disks will be replaced at no charge within 90 days of purchase. Within one year of invoice date, defective disks will be replaced (on a one-time-only basis) for a fee of $5.00. Disks damaged by users can be replaced at a cost of $15.00 per disk.

As the entire program is not loaded upon booting, a disk may be used with only one computer at a time.

SUPERKEY

DESCRIPTION

Title: SuperKey
Author: Bytes of Learning
Publisher: Bytes of Learning
Source: c/o Scholastic Ltd, 123 Newkirk Road, Richmond Hill, Ontario L4C 3G5
Subjects: Computer Literacy
Topics: Keyboarding
Components: 1 disk and backup, user's manual (44p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Available only in Apple format

Version: 1985
Display Language: English
Cost: $74.95 (1986)
Tel. #: (416) 883-5300
Users: Grades 4 - 9

OBJECTIVES

Superkey is designed to teach users to operate the standard QWERTY keyboard by touch.

PEDAGOGICAL CONTENT DESCRIPTION

This program is a tutorial/drill and practice program which covers basic touch keyboarding on a QWERTY keyboard. The main menu offers four options:

1. POSTURE: Correct hand and body posture are graphically modelled. Pictorial reminders of proper posture occur throughout the program.
2. FINGER NAMES: Home row finger position is modelled together with proper thumb control of the space bar. Students have unlimited practice reviewing these fingering patterns.
3. LESSONS: The alphabetic, punctuation, return and shift keys are presented in 10 lessons (3 new keys per lesson). In each lesson, correct fingering is modelled, three lines of drill on the new key in relation to home row keys are offered, new letters are practiced via three lines of word combinations, and finally, three sentences are offered involving words using the new letter. Exercises in any of the four lesson parts can be repeated at the user's discretion.
4. SKILL CHECK: Students may elect to do speed/accuracy checks related to any of the ten lessons or they can check their speed on material of their own choosing by electing "Open Screen". Practice paragraphs are also provided in the manual. Feedback provides the user with highlighted errors and suggestions for improvement.

PEDAGOGICAL CONTENT EVALUATION

This program presents sound content coverage of the alphabetic and punctuation keys in lessons which would average twenty minutes in length. Although students may select the sequence of lessons from the menu, following the suggested order is mandatory for novice typists. The depth of treatment is very appropriate in that it offers modelling, guided practice using successively more difficult drills, and independent practice.

The fact that this program suggests that the space bar can be controlled with either thumb is unconventional--most textbooks suggest right thumb control. However, the software shows the right thumb being used and page 20 in the manual explains the use of the thumbs in more detail. Teachers should note that numbers and symbols are not covered in this program.

INSTRUCTIONAL FORMAT DESCRIPTION

Students choose lesson sequence by inputting the number associated with that particular lesson. The space bar is used to go on, the left arrow key to back up a display, the R key to repeat a step, and the ESCAPE key to leave a section. Within each lesson students input the appropriate alphabetic/punctuation keys.

Drills are randomly selected from a data bank of appropriate word/sentence combinations for a given key - 290 sentences are available. Students typing an incorrect key in the "Finger Names" section are given graphical feedback in the form of a flashing key plus a depiction of the proper fingering techniques. At the end of each lesson a textual comment is made about the student's performance ranging from "More practice is needed" to "Terrific". Speed and accuracy results are presented after each skill drill.

INSTRUCTIONAL FORMAT EVALUATION

This program provides an effective combination of modelling of proper finger movement and active participation/practice to promote acquisition of touch keyboarding skills. The random selection of letters, words, sentences and paragraphs for selected exercises helps to eliminate boredom from repeat practice sessions. The concise feedback is appropriate and the student option providing for extra comments/suggestions is very helpful. The fact that the user has total control over sequence, rate, and amount is excellent.

The fact that students are allowed to correct errors in the Skill Check is an unusual practice in timings. Skill checks could be made more motivational if a speed/accuracy goal based upon the student's performance on drill items was suggested.

TECHNICAL CHARACTERISTICS DESCRIPTION

This program uses combination upper/lower case text with enlarged print and highlighting for emphasis. Graphics are used to illustrate proper posture and fingering, and a graphic "computer person" is used to provide direction on the guided exercises.

TECHNICAL CHARACTERISTICS EVALUATION

As limited use is made of color, the program can be run successfully on a monochrome monitor. The graphics are clear and provide excellent models. The fact that the program boots completely upon initial loading means that there is no program delay due to disk interaction.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

A 44 page user's manual outlines the program's purpose, provides a glossary of words and phrases, contains operating instructions, answers frequently posed questions, suggests tips for typing success, etc. Six reproducible masters are included which illustrate the Apple II+ and IIe keyboard, show finger responsibilities, label keyboard functions, and provide a personal record file to record student speed and accuracy on skill checks.

IMPLEMENTATIONAL SUPPORT EVALUATION

The manual concisely outlines all necessary operational procedures and provides a clear overview of program contents. Evaluators noted that the paragraphs included in the manual and suggested for use with Skill Check II were too long to be typed in the available disk space.

While a student kept recordkeeping system is provided, it would be better if the disk contained a management system.

SUMMATION

This user-controlled program is easy to use and meets the objectives of providing touch keyboarding skills in an interesting and motivating manner. Excellent graphics, well sequenced content, and ample opportunities for review result in sound instruction.

STATUS

"Superkey" has been authorized as a **SUPPLEMENTARY** learning resource for grades 4 - 9 computer literacy.

PURCHASE INFORMATION

This product may be purchased for $74.95 (1986) from Scholastic at the address given at the beginning of the report. Defective diskettes will be replaced without charge within a 90 day warranty period. Subsequently, damaged diskettes may be replaced for $10.

This disk has the advantage of being capable of operation on more than one machine at a time; however, such use is subject to copyright laws and any license or purchase agreement.

TONK IN THE LAND OF BUDDY-BOTS

DESCRIPTION

Title: Tonk in the Land of Buddy-Bots
Series: Tink! Tonk! Series
Author: Mercer Mayer
Publisher: Mindscape Inc.
Source: c/o GLC/Silver Burdett, 115 Nugget Ave, Agincourt, Ontario M1S 3B1
Subject: Problem Solving
Topics: Shape and pattern recognition, memory, critical thinking, decision making, map reading
Version: 1984
Display Language: English
Cost: $52.95 (1986)
Tel. #: (416) 291-2926
Users: Grade 1 - 3
Components: 1 disk with backup, teacher's guide (16p.), user's guide (24p.)
System Requirements: Apple II+/IIe/IIc, 64K, 1 disk drive, colour monitor recommended, joystick (optional)
Other Formats Available (not evaluated): IBM PC/PCjr, Commodore 64, Atari

OBJECTIVES

This program is designed to refine and reinforce visual discrimination, problem solving, and critical thinking skills. In addition, it requires multiple levels of involvement: comprehension, application, analysis, synthesis, and evaluation. Specific educational objectives are provided with each activity.

PEDAGOGICAL CONTENT DESCRIPTION

The program consists of five educational games, one "just for fun" activity and a series of adventures. Each game gives young students the opportunity to practice one or more of the following skills: shape and pattern recognition, concentration/memory and critical thinking/strategy. Each game revolves around "Buddy-Pots" or "Minibots", robot-like creatures which are composed of different combinations of many different heads, torsos and legs. Each game contains four different levels of activity.

1. Different/alike: Students identify which minibot is different from six minibots shown on the screen.
2. Match the shadow: Students identify which of 4, 6, 8 or 10 outlines will match the identified minibot.
3. Minibot Shuffle: A minibot is placed inside one of three boxes, all of which are then shuffled around the screen. The student attempts to identify where the minibot is at the end of 4, 6, 8 or 10 moves. The interval between moves decreases for each level of difficulty.
4. Remember Me: The student looks at a picture of a Buddy-Bot and then attempts to recreate it from memory. This involves picking the appropriate parts from various heads, torsos and sets of legs. The amount of time available for viewing decreases with each level of difficulty.
5. Buddy-Bot Puzzles: A whole Buddy-Bot is shown and the user attempts to put its nine components together in the right order. Higher levels involve a more random placement of parts and inability of changing one's mind.

Minibot Factory is a "just for fun" game which allows the students to build their own minibots.

In the adventure, the user (Tonk) attempts to find the missing pieces of a Buddy-Pot which are scattered around Buddy-Pot land. A map is provided to guide the student and the user may collect missing pieces either by finding them or by entering caves and playing a game. These games are the same as above. Again, four levels of difficulty are available with the level of difficulty determining how many pieces of the robot the student must assemble to win as well as the number of challenges that the user may face.

PEDAGOGICAL CONTENT EVALUATION

The range of content is appropriate for the target audience and there is adequate depth to meet the intents of the program. Sequencing is good as there are four levels of difficulty with each successive level in a game or an adventure offering more challenge. Teachers should note that some of the easiest levels will prove difficult, particularly to younger students. The higher levels will take the students longer to complete and may prove too difficult unless the students are adequately prepared and/or assisted.

The teacher should make sure that a student does not enter a level above his/her ability. Some games may prove too difficult and some students may become frustrated in the adventure when they are constantly being caught by guards, falling into "black holes" and "sky holes" and being returned to the beginning of the game. Once more familiarity is gained with the program and the use of directional keys, performance should improve. Most of the program, with the possible exception of "Minibot Factory", allows the student to be involved in a dynamic learning experience in which thinking skills must be used to select the correct inputs.

Although the instructions which are offered in the program are useful, the reading level will be beyond the ability of all but the upper end of the target audience. Prior demonstration of each activity will be required.

The content is appropriate to the medium. Students should be motivated by the exciting robots that are derived and they should find the adventure game stimulating and challenging.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of menu selection for choosing an adventure or a game and the level desired; using arrow keys or I, J, K, M as directional keys to move Tonk; inputting numbers (1 to 6) or Y and N to respond to questions; using RETURN and SPACEBAR for page turning; using ESC to stop a game; and pressing B to see how many parts of Buddy-Bot have been collected. RETURN is also used to enter responses.

All robots in the exercises are composed of randomly selected body parts, offering a possible 128 different robots to remember, reproduce, or match to the correct shadow.

Feedback in some games is provided immediately after each response while in others, "Remember Me" and "Buddy-Bot Puzzle", feedback occurs only after all the steps in assembling a Buddy-Bot have been completed. In most cases, an incorrect response results in the correct answer being shown. An imperfect score generally results in "Better luck next time" and a picture of Gork (an evil character) at the end of the game.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is appropriate for most of the target audience if they have received prior instruction. As the reading level of the instructions may be beyond their ability, and as the method of interaction changes between games (sometimes spacebar, sometimes return, sometimes Y or N), some students may encounter difficulty. Interaction would have been easier with more consistent methods and/or easier on-screen instructions. Also, some children may experience some difficulty with the map to screen relationship.

Although the feedback has little variety, it is adequate for the intents of the program. Unfortunately, negative feedback does not provide the user with assistance and at times messages can be somewhat brusque ("Look harder next time"). The reading level of both cues and feedback will likely be too difficult for grade one students and messages will need to be read for them. More graphic feedback and/or easier text would be beneficial for non-readers. Non-readers will also experience some difficulty in understanding the quantitative feedback and may require assistance from an adult. Those scores (which must be recorded from the screen following each game) are somewhat vague and would give the teacher only a general idea of the level of competency of a student.

TECHNICAL CHARACTERISTICS DESCRIPTION

Text is varied in size but in upper case only. Colour and graphics are used extensively in this program. Sound is optional.

TECHNICAL CHARACTERISTICS EVALUATION

Displays are generally effective and well-spaced with the exception of the textual feedback which is somewhat crowded in some of the games. It is unfortunate that only upper case letters are used in the text. Colour and graphics with animation are used effectively and are an asset to the motivational and learning aspects of this program. Although a colour monitor is recommended, this program can also be used with a monochrome monitor but colour cues will be absent. Although the users will likely enjoy the sound, it can be eliminated when it becomes distracting.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No specific entry competencies are stated. No management system is included with this program.

The teacher documentation includes instructional objectives, an introduction to using the program, suggested related activities, a map of Buddy-Bot Land, a student record sheet, a class record sheet, some reproducible worksheets for student use and answers to the worksheets. A user's guide outlines the program, provides complete instructions for its operation, contains the map and includes related off-screen activities.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although no entry competencies are specified, users should be able to read or they will need to have someone read for them. A student orientation to the program would save the teacher time later.

It is unfortunate that a management system is not included to keep track of student scores and perhaps the type of errors made.

The documentation is concise, useful and easy to use. Although some user support materials are included, it would be beneficial to have more, especially for visual discrimination skills. Score sheets which will need to be completed by the student are not in exactly the same order as the list of games on the screen.

The teacher will require very little computer experience to use this program. However, much teacher time will be necessary for introduction and program assistance if the program is to be used with the younger half of the target audience.

SUMMATION

The major strength of this program is the motivational approach using colour and graphics to assist students to reinforce visual discrimination, problem solving and critical thinking in an enjoyable learning experience. The activities are imaginative and their range and depth are appropriate for the upper end of the target audience.

A weakness in the program is the lack of accommodation of the non-readers; as a result, someone who can read will be needed to provide introductory help. In addition, the activities can be challenging to younger students and attention will have to be paid to ensure that a student is working at an appropriate level and that assistance is provided if frustrations occur.

STATUS

"Tonk in the Land of Buddy-Bots" has been authorized as a **SUPPLEMENTARY** learning resource for grades 1 - 3.

PURCHASE INFORMATION

This product may be purchased for $52.95 (1986) from GLC/Silver Burdett at the address given at the beginning of the report. The program may also be available locally, check with your software dealers. Defective diskettes will be replaced without charge within a one year warranty period. Thereafter, replacement disks may be purchased for $10.

Due to frequent disk interaction, this program may be used with only one machine at a time.

THE TWIN

DESCRIPTION

Title: The Twin
Author: None Cited
Publisher: Mosaic Software Inc.
Source: c/o Canada South HiTech, 1177 Newmarket St, Ottawa, Ontario K1B 3V1
Subjects: Business Education
Topics: Spreadsheet, presentation graphics, file manager
Version: 2.0
Display Language: English
Cost: LRDC Buyer's Guide
Tel. #: (613) 745-8120
Users: Grades 10 - 12
Components: 3 disks (2 program, 1 library), user's guide (342p.)
System Requirements: IBM PC/XT, PC-DOS 2.0 or later, 320K RAM (recommended), dual floppy drives or a floppy drive and hard disk system, monitor, options include: color graphics & graphics monitor, asynchronous communication card (for IBM PC), plotter, printer
Other Formats Available (not evaluated): IBM compatibles

OBJECTIVES

"The Twin" is a spreadsheet software program designed to provide an introduction and specific instruction in the use of a spreadsheet in sample business applications.

CAPACITY: DESCRIPTION

"The Twin" is a "Lotus 1-2-3" clone with similar capacity: 254 columns by 8192 rows. While it will function with 260K, a minimum of 320K is recommended and the program is capable of using up to 640K.

CAPACITY: EVALUATION

"The Twin" offers more than adequate capacity for most high school applications. While it does not make use of virtual memory, this is not a major handicap.

PERFORMANCE FUNCTIONS: DESCRIPTION

"The Twin" is two parts (a spreadsheet and business graphics) of a seven part integrated software package which offers data base, word processing, data mail, communications and a terminal emulator. The package offers all standard mathematical functions as well as trigonometric, logical, financial and statistical functions. Selection functions include: choose, vertical lookup, horizontal lookup, and/or, if not, true and false, is not available, and is error.

When creating formula, cells may be addressed by cursor pointing or by entering the label location or cell name as defined by the user. The formulae for cells can be viewed either on an edit line or by cell by choosing a text display. Cells may be individually or globally protected from unwanted data entry and protected cells can be highlighted in a different color if desired. Formulae may be copied as absolute, relative, or mixed references using the copy and range function. Macro key definition is also available to save repetitive keystroke operations. The user is given the option of automatic or manual calculation mode. The program offers split screen with independent or conjunctive scrolling either horizontally or vertically.

The program offers the ability to convert information contained in the worksheet to graph form with a user choice of eight options (line, bar, pie, etc.).

PERFORMANCE FUNCTIONS: EVALUATION

This program offers an excellent array of mathematical functions for standard, statistical, and financial operations. The financial modeling functions are particularly impressive. Use of the program requires a minimum of disk swapping. A good array of very functional graphing capabilities is offered, cursor movement is efficient, and built-in help screens provide instant information and examples to assist the user in gaining familiarity with the program. While vertical split screens are available, "The Twin" does not offer the capability of assigning independent global commands.

FORMATTING AND PRINTING: DESCRIPTION

The program allows either global formatting or individual assignment of column width and data alignment (right, left, or centered). It also offers both scientific notation and automatic decimal alignment. The program accommodates the insertion/deletion/move of individual cells, a row, a column, or a range of cells. Data may be sorted using both primary and secondary keys, and hardcopy can be formatted to use special printer codes, page numbers, titles, headers, and footers. Graphs may be printed using either a plotter or a dot matrix printer. Borders and formulae may be printed if desired. Text can be justified or centered, portions of a worksheet can be printed, and the program will adjust the print size to the size of paper specified.

Financial features allow for the use of dollar signs, comma format or decimal notation. Negative amounts are enclosed in brackets.

FORMATTING AND PRINTING: EVALUATION

The variety of formatting options offered permit good flexiblity in worksheet design. The ability to save printer codes, ranges and formats with the worksheet is a unique feature in that it enables a document to be recalled with the same parameters present. The ability to format either globally or by individual cell/column/row is a positive feature.

The program does not offer boldfacing or underlining, however, their absence is not critical. The option of printing graphs in color is available only if a plotter is used.

INTERFACE ABILITY: DESCRIPTION

This program offers immediate interface with each of its other five modules offered by Mosaic Software and permits the import or export to Visicalc or SuperCalc using DIF files. Lotus 1-2-3 files can be addressed directly from "The Twin"; however, "The Twin" spreadsheets must be "translated" for the Lotus 1-2-3 program to access the sheets.

INTERFACE ABILITY: EVALUATION

The program's interface ability is more than adequate for most high school applications. The ability to interface the spreadsheet with a word processor is particularly helpful.

IMPLEMENTATIONAL SUPPORT: DESCRIPTION

Implementational support consists of a 300+ page manual which includes 274 pages of reference and a 68 page tutorial (covering spreadsheet operation, data base operation, use of macros, graphing, etc.). The library disk contains sample worksheets to be used in conjunction with the written tutorial.

IMPLEMENTATIONAL SUPPORT: EVALUATION

The tutorial is well-organized, but assumes some degree of familiarity with spreadsheet operation. Expanding the number of examples would improve clarity, and some explanations (e.g. macros) should be amplified. The addition of a quick reference card would be welcomed.

SUMMATION

"The Twin" is a easy-to-use spreadsheet/graphics program offering efficient cursor movement, good flexibility, ease of editing, and minimal disk swapping. The good range of graphics and the detailed help menus combine to make this an effective package for high school use. While this program is a Lotus 1-2-3 clone in terms of functions and capabilities, its operating speed is about one-third that of Lotus. However, this is not a major detriment for high school applications.

STATUS

"The Twin" has been authorized as a BASIC learning resource for grades 10 to 12.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distributing Centre for an approximate package price of $100.00 less a 15% educational discount and an additional 25% subsidy discount. Network pricing may be available from the LRDC order desk.

Defective material will be replaced at no charge to registered owners.

WORD ATTACK!

DESCRIPTION

Title: Word Attack!
Authors: Janice Davidson & Richard Eckert
Publisher: Davidson & Associates Inc
Source: 3135 Kashiwa Street, Torrance, CA 90505
Subject: Language Arts
Topics: Teaching new words, their meanings & usage

Version: 1983
Display Language: English
Cost: $49.95 US (1986)
Tel. #: (213) 534-4070
Users: Grades 4 - 9

Components: 1 program disk, 1 data disk, teacher's guide (44p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor, printer (optional), joystick (optional)
Other Formats Available (not evaluated): IBM PC, Commodore 64/128, Atari

OBJECTIVES

This program is designed to help students learn new words, their meanings and usage in an exciting and interesting way.

PEDAGOGICAL CONTENT DESCRIPTION

"Word Attack!" is a receptive vocabulary building program. The program includes four activities designed to enhance the vocabulary of the user. It covers topics of vocabulary building, word meanings, usage of words as nouns, verbs, adjectives and sentence completion. A content or data disk with a selection of word files is provided with the program package. The user may select from nine different levels of difficulty. An editor which allows the teacher to create data disks with word files is provided within the program.

The program is divided into four task areas:

1. WORD DISPLAY: A list of twenty-five words is displayed each with its synonym or definition and a sentence illustrating its usage. The user can repeat this activity until the words and their meanings are learned.
2. MULTIPLE CHOICE QUIZ: Two formats in the quiz are available, both of which are designed to reinforce what has been learned by trying to recall the information. One format displays the word and asks the user to select the meaning while the other format displays the meaning and asks the user to select the correct word. When a quiz is completed, the score is displayed along with the words which were missed. The user may repeat the test until a perfect score is achieved.
3. SENTENCE COMPLETION: The meaning of a word is displayed at the top of the screen and the user is required to type the correct missing word into the sentence displayed below it. This activity requires the user to recall, use and spell the word correctly. A help function is available which assists the user to select the correct word from four options.
4. WORD ATTACK!: This is an arcade type game. The object of the timed game is to attack the word whose meaning appears at the bottom of the screen by using arrow keys and Z key or joystick. Three speeds are available for this game.

PEDAGOGICAL CONTENT EVALUATION

The multifaceted approach used in this program is effective in providing the required depth to achieve the intents of this program. The range and sequence are appropriate and effective for the target audience with the student and teacher having a significant amount of control. The increase in difficulty from level to level is suitable and maintains student interest. The user may either follow the suggested sequence of activities or may select any of the activities; sequence can be adjusted to the needs of the user. The editing feature is a great asset to this program in that it allows the teacher to customize the program. The "Help" function and the review of missed items add strength to the program. The arcade type game adds interest and motivation.

The content is current, accurate and free of bias. Readability is appropriate and if required, it can be modified by the teacher. The presentation of the content is appropriate to the medium and provides practice in an interesting manner.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction varies with the activities. The students make menu selections, select levels of difficulty, choose adjective, noun or verb lists, enter display time for words, choose the format for the multiple choice quiz, input missing words in sentence completion, select from multiple choice lists, access a help menu, change answers by using an arrow key, press ESC to exit the program, use the SPACE BAR to turn pages, press the RETURN key after entering answers, use a joystick or arrow keys and a Z key to "shoot" words.

Questions or vocabulary words are provided in a sequential order for the Word Display activity but they are selected randomly for the other three activities. Questions are selected from data disks which are either program created or teacher created.

Feedback is provided after all user responses. Correct responses in the Multiple Choice Quiz and Sentence Completion activities are rewarded with a congratulatory message and short optional melody. A score is provided at the end of these activities or when the user chooses to exit early. When an incorrect response is given, the user is told to try again. The answer is given after two incorrect attempts. In addition, the user may print out the score and a list of words missed. The Word Attack activity provides rewards through points awarded for successful playing of the word attack game. Points accumulate after each correct response.

No pre- or post-tests are provided. The Multiple Choice Quiz and the Sentence Completion activities are methods used to reinforce student skills. It is recommended that the criterion of success should be 84% before advancing to a higher level. No branches are provided in this program.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is generally appropriate and effective with the student interacting actively and easily with the program; however, there is a concern with the passive reviewing of words in the Word Display activity. The edit feature which permits the teacher to create word files and expand the scope of the content and its suitability for the users is excellent. Questioning is appropriately randomized and is suitable to the content. Cueing is used effectively and incorrect answers can be corrected easily.

Feedback is appropriate with optional audio feedback a good feature for classroom use. Quantitative feedback with the print option is a useful feature. The amount of control over the program is excellent with effective and well designed control features providing an interesting learning experience.

TECHNICAL CHARACTERISTICS DESCRIPTION

Print is provided in upper and lower case letters with the option of regular or bold face type. Highlighting is used for key words/answers. Flashing is used to draw attention to percentage. Graphics and optional sound are included in the program.

TECHNICAL CHARACTERISTICS EVALUATION

The displays in all four activities are clear, well designed and effective. Character size using both upper and lower case letters is appropriate with the option of bold face type being a very good feature. The sound is interesting and it can be turned off when it becomes distracting in a classroom setting. The graphics are simple but appropriate for the intended use. The program is very easy to use and should require little teacher supervision. The ability to exit from the program and return to the menu at any time is a good feature.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No management system for recordkeeping is provided; however, an edit feature is included. The editor enables a teacher to enter his or her own word lists and use them with all four learning activities. In addition, this editor program may be used to turn this program into a general learning tool by using it for scientific terms, historical dates, foreign languages, antonyms, etc. The editor feature has commands for saving data files, retrieving data files, editing files, listing the entire file, deleting lines from the file, inserting lines in the file, printing the file, clearing the screen and quitting the editor to return to the program. A "Help" feature lists all commands.

The teacher documentation provides information on how to use the program including selecting levels, working through the activities and special option features, and using the editor. It also provides a glossary of the words on the the data disk. No user support materials are provided.

IMPLEMENTATIONAL SUPPORT EVALUATION

The editor functions work as described and are easy to use. This option enhances this program and provides an opportunity for the teacher to expand the scope of the program. However, it is noted that it will likely take a significant amount of planning, preparation and time to create quality data disks. The teacher documentation is clear and easy to follow. The alphabetical lists of the words in each level which are provided in the glossary are helpful. The program can easily be implemented in a classroom setting and is adaptable to a variety of learning situations. The program is easy to use and requires minimal teacher computer competency.

APPLE - IBM VERSIONS

This report has been based on an evaluation of the Apple version. A review of the IBM version revealed some minor technical differences (i.e. the title screen was animated, the options of using regular/bold type or of using a joystick were not available); however, the content was identical for both versions.

SUMMATION

The instructional format is effective in maintaining student interest and providing an effective learning experience for the students. The editor provides a structure within which teachers can customize the program to meet the needs of their particular students, provided they take the time. The program is well designed, easy to use and readily adaptable to classroom use. The high degree of user control is an excellent feature. The arcade type game is highly motivating, even to the reluctant learner.

STATUS

The Apple and IBM versions of "Word Attack" have been authorized as a **SUPPLEMENTARY** learning resource for grades 4 - 9.

PURCHASE INFORMATION

This product may be purchased for $49.95 US (1986) at the address provided at the beginning of this report. A backup copy of the program disk is available from the publisher for $10.00 US with a receipt of the purchase warranty card. "Word Attack!" may also be available locally, check with your software dealers.

Davidson & Associates provide a one-year warranty and replacement service for defective disks if the buyer returns the disk with proof of purchase.

The disks have the advantage of being capable of operation with more than one machine at a time provided that only one activity is accessed; however, such use is subject to copyright laws and any license or purchase agreement.

WORD QUEST

DESCRIPTION

Title: Word Quest: Binary Search Strategies
Authors: Education Development Center & Dr Judah Schwartz
Publisher: Sunburst Communications
Source: 39 Washington Avenue, Pleasantville, NY 10570-9971
Subject: Language Arts
Topics: Improving vocabulary & sequencing skills, teaching binary search strategies
Components: 1 disk with backup, teacher's guide (12p.)
System Requirements: Apple II+/IIe/IIc, 48K, 1 disk drive, monitor
Other Formats Available (not evaluated): Commodore 64

Version: 1985
Display Language: English
Cost: $59.00 US (1986)
Tel. #: (914) 769-5030
Users: Grades 4 - 6

OBJECTIVES

This program is designed to expand student's vocabulary, to teach search strategies, to improve dictionary skills and to reinforce alphabetic skills.

PEDAGOGICAL CONTENT DESCRIPTION

This program consists of two game activities, "What's the Word?" and "Word Chain". Both activities deal with vocabulary and dictionary skills in a word search format.

In "What's the Word?" one player is to input a "secret" word without the other player watching. The opponent then sees the guide words "a" and "zymurgy" on the screen. The object of this game is to identify the secret word as quickly as possible by applying alphabetic, vocabulary and deductive reasoning skills. The opponent types words located alphabetically between the two guide words and continues to narrow the interval between the guide words in order to identify the secret word.

In "Word Chain", the student types two guide words, then the player begins a word chain by entering a word that lies alphabetically within the initial interval set by the guide words. The object is to find as many words as possible that can lie between the guide words. Each subsequent interval is set by the program which examines the size of the alphabetical gap between the new word and the opening word, and compares it to the size of gap between the new word and the closing word. The smaller of these two gaps becomes the new interval within which the player must choose the next word. The most effective search strategy is the same in both games and the limit is set by the power of binary search. The students are encouraged to use dictionaries.

PEDAGOGICAL CONTENT EVALUATION

Both activities offer appropriate range, sequence and depth of content but they are really controlled by the inputs of the users. In both games the depth of the program largely depends on the student's development of strategies to identify the appropriate words. Although accuracy in alphabetic ordering is monitored very closely by the program, the program does not intervene if a word is misspelled or if a non-existent word is entered. The use of the dictionary to ensure correct spelling of word choices is encouraged. The strategy of choosing a word that is as close as possible to the middle of each interval assists the students to make more efficient guesses. It is noted that since the students input the vocabulary, the readability and interest level will likely be appropriate for the users. This program can also be used with students studying foreign languages which use the Latin alphabet.

INSTRUCTIONAL FORMAT DESCRIPTION

Student interaction consists of menu selections, inputting secret words, inputting words in order to solve secret words, using RETURN for page turning, pressing ESC to exit, using CTRL E to go back to the beginning of an activity, using "?" and RETURN to see the growing word chains. The player always inputs words that are alphabetically located between the guide words on the screen.

Feedback is immediate. A correct word input results in the word reappearing in one of the two boxes above the response box. If it appears in the left box, it indicates that the student must choose a new word that would follow the first word. If the response appears in the right box, the student must then choose a new word that comes before it. If an incorrect response is made, the program beeps and the mistake vanishes. When a student discovers the correct word in " What's the Word?", all the choices with words listed in columns representing the choices preceding and following the correct word are shown. A statement appears at the bottom of the screen indicating how many tries were needed to find the word. In "Word Chain", a similar screen appears when "?" is pressed and word chains are presented. The student is also told how many links are in the chain.

INSTRUCTIONAL FORMAT EVALUATION

Student interaction is consistent and appropriate for the target audience with the student being able to interact easily with the program. The program promotes learning in that it provides ample opportunity for the student to use vocabulary and dictionary skills in a word search format. The student manipulates words in order to develop logical word search techniques by gradually narrowing the range of choices to its logical conclusion. Students should be familiar with alphabetizing and using the dictionary prior to working with the program. The inclusion of a spellcheck of some type would be helpful.

The feedback is adequate for the requirements of this program. The teacher should be aware that negative feedback is not corrective. Although lists of responses are listed along with the number of tries, it is unfortunate that these are not retained in the program and cannot be printed. The program does not provide the teacher with a diagnosis of student errors.

TECHNICAL CHARACTERISTICS DESCRIPTION

Text is larger than normal and uses both upper and lower case letters for statements and instructions, but the student responses appear in upper case print. Inverse is used to highlight various functions. Color and graphics appear on the title page but are not used in the activities. Sound is used in negative feedback.

TECHNICAL CHARACTERISTICS EVALUATION

The technical quality is good with good screen clarity and appropriate text size. Directions are clearly printed and easy to follow and highlighting is effective.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

No entry competencies are specified. This program does not include a management system or any user support materials for student use.

The documentation includes an introduction to the program, instructional objectives, suggested grade levels, explanations of both games, sample program runs, strategies for classroom integration and program operating instructions.

IMPLEMENTATIONAL SUPPORT EVALUATION

Although no entry competencies are specified, students should be able to use a dictionary and spell the words they use correctly to get maximum benefits of this program. The documentation indicates that this program could be used with grade two students but with their limited dictionary skills it is questionable. Even with grade three and four students, teachers may need to make up a card listing the alphabet and place it by the computer to assist them, especially for students with weak alphabetizing skills.

This program does not provide a management system or user support materials and student work cannot be saved. The documentation suggests that the students copy their word lists and word chains from the computer screen. This would waste time that could be used with better educational benefits. There is no diagnostic information provided for teacher use after the students complete the program. The inclusion of a management system, a print option and student support materials would enhance the program. In spite of the drawbacks, the program is easy to implement and operate in a classroom setting and is reasonably effective in meeting its objectives with minimal teacher supervision. However, it is noted that the teacher has no control of the input of words and these may need to be checked from time to time. The documentation is easy to follow and provides the necessary information to use the program with ease.

SUMMATION

The major strength of the program is the well-designed game format which meets the objectives of the program in an interesting and motivating way. The games provide very good opportunities for students to expand their vocabulary, to reinforce their alphabetizing skills, to use the dictionary and to become more sensitive to identifying and using effective search strategies. The program is easy to implement and operate in a classroom setting. The documentation is easy to follow and provides useful teaching strategies. The program can also be used in other subject areas.

The program is limited by its lack of a management system and print option. It would be useful to have student responses saved for the teacher to analyze. The inclusion of student support materials would be useful.

STATUS

"Word Quest" has been authorized as a **SUPPLEMENTARY** learning resource for grades 4 - 6.

PURCHASE INFORMATION

This product may be purchased from Sunburst Communications at the address provided at the beginning of this report. The price is $59.00 US (1986) for a single package consisting of one disk with a backup and teacher's guide. "Word Quest" is also available in a lab pack consisting of one teacher's guide and 10 disks for $177.00 US (1986) or, a Corvus Network version, again for $177.00 US (1986). A free 30-day trial period is provided by the publisher.

Sunburst Communications includes a replacement warranty on all components for the life of the product. This warranty covers components that are defective, lost, stolen or damaged during normal school use. Also, program updates and improvements are provided at no charge if the purchaser indicates on the order form that he or she wants them.

This diskette has the advantage of being capable of operation on more than one machine at a time; however, such use is subject to copyright laws and any license or purchase agreement.

WORDPERFECT

DESCRIPTION

Title: WordPerfect
Author: None Cited
Publisher: SSI Software
Source: c/o J.B. Marketing, 120 9th St East, P.O. Box 422, Cornwall, ON K6H 5T2
Subjects: Business Education
Topics: Word processor
Version: 4.2
Display Language: English
Cost: LRDC Buyer's Guide
Tel. #: 1-800-267-9393
Users: Grades 10 - 12
Components: 5 disks (program, speller, thesaurus, learning & printer), user's guide (477p.), classroom workbook (248p.), installation guide (48p.), reference card, function keyboard template
System Requirements: IBM PC/XT/AT, PC-DOS 2.2 or later, 256K RAM, dual floppy drives or a floppy drive and hard disk system, monitor, printer
Other Formats Available (not evaluated): IBM compatibles

OBJECTIVES

"WordPerfect" is a comprehensive word processing package designed to provide the user with extended features such as a speller, thesaurus, built-in mathematics functions and elaborate merging features.

EDITOR DESCRIPTION

"WordPerfect" offers 64 space margins and 54 lines/page default values which can be user changed. The index records the file name, the size of the file in bytes, and the date and time of the last save. File sizes are limited only by the capacity of the disk.

Documents may be edited at any stage of preparation. Up to three levels of deleted text can be recovered. Error messages are provided and additional on-line help is available via the F3 function key. Text may be scrolled by line, screen, or page.

Text moves can be accomplished by sentence, paragraph, page, column, or block. Furthermore, two documents may be edited on the same screen by horizontally splitting the screen. Each window then has a separate status line and text can be moved from one file to the other.

Search and replace can be invoked in manual or automatic mode and will accommodate words or phrases in either upper or lower case. The search feature operates in either forward or reverse direction, however the replace feature works only in forward direction.

EDITOR EVALUATION

Document creation is extremely simple and straightforward and default functions can be easily changed. On-line help makes the editing process very easy. Error messages are generally self-explanatory and the scrolling process is efficient.

"WordPerfect" operates through extensive use of the function keys. Gaining initial familiarity with the function keys can be time consuming, however a colour-coded quick reference card speeds this learning process.

Moving text both within a document and between documents is easy and efficient.

FILE MANAGEMENT DESCRIPTION

Users of "WordPerfect" can exit to DOS without leaving the word processor. Saving of files can be done either by a timed backup feature (which permits automatic backup of documentation on the screen at a designated time interval and to a chosen drive/directory) or by activating the save feature. All files contained in a current drive or directory may be searched by key words/logical operators. Documents may be "locked" via assignment of a password, containing up to 75 letters, to each individual file. The deletion of selected documents must be done manually.

Up to 14 merge applications are available. In addition, "WordPerfect" will interface with DCA (IBM mainframe), Navy DIF, WordStar, Multimate, Mail Merge, Spreadsheet DIF files, and seven-bit transfer conversion.

FILE MANAGEMENT EVALUATION

The option of automatic save can be a useful feature, particularly for beginning classroom instruction. After a file is saved, the user is provided with a blank screen for new document creation. Should the file most recently created be required, it must be called up from the files list menu. An instant recall feature of the last document would be a nice addition.

The process of copying files is uncomplicated and easily accomplished and the vast array of merge options are explained in detail. File deletion is a very easy process, but the safeguards to prevent accidental deletion may be considered too narrow for true novices.

"WordPefect" offers excellent interface with a wide variety of programs. Assignment of password security to each file enables several students to use the same disk, however there appears to be no facility for retrieving passwords if they are forgotten. The option of up to 75 letters for passwords may be extreme considering the standard is generally 8 letters.

PRINT FORMATTER DESCRIPTION

"WordPerfect" invokes default settings upon initial boot; however, the user can change tabs, margins, spacing, hyphenation options, and character alignment at any point during document creation. The changes take effect from the point of change and can be altered as desired. Newspaper-style columns can be accommodated and automatic decimal alignment is offered. Automatic centering options include centering between margins, over columns, or vertical text centering. Single, one and one-half, double, or triple line space options are available. Proportional spacing is available provided the printer has proportional type capabilities. Justification settings may be invoked and cancelled within a document at will. While word wrap cannot be disabled, users can bypass it by entering a hard return code.

Automatic pagination can be invoked using either Roman or Arabic number styles and can be printed at the top or bottom. Alternate left and right page numbering is also available. Up to two headers and footers can be defined at any point in document creation.

Screen display closely resembles printed output: centering and upper/lower case are exact, boldfacing is shown in brighter text, and underlining appears in a separate color. Line spacing is shown to the nearest whole number. Control codes and special symbols may be viewed by displaying the split screen. Justification, subscripts and superscipts appear on printed copy only.

Other features offered by "WordPerfect" include counter ability (i.e. automatic change of the numbering sequence when additions/deletions are made), the ability to create a table of contents of up to five levels, unlimited macro ability, a choice of eight type fonts, selected math calculation options, a 100,000 word dictionary which the user can add to/delete from, a thesaurus, widow protection, and the option of reverse field viewing. In addition, a management system alphabetically lists all files on disk together with the date, the time, the amount of available disk space, document size in bytes, etc.

Printing options permit printing of the full document, a page, or a block and printing can be cancelled and resumed at any time. A line draw feature permits the user to draw boxes, graphs, and other illustrations using the DOS graphics characters. "WordPerfect" also allows the user to assign special characters to the keyboard without having to give up any characters already present. This is done by combining the ALT and CTRL keys with the letters A to Z.

Documents can be queued to print in sequence, however priority print can be used to interrupt this sequence.

PRINT FORMATTER EVALUATION

While default values can be easily changed, it is unfortunate that the program does not enable the user to store frequently used margins for instant recall. The process of setting/changing tabs, indentations, line spacing, justification, etc. is efficient and straight-forward. "WordPerfect's" adjustable hyphenation zone is excellent; however, it does not provide the user with appropriate alternatives for word division (e.g. words requiring hyphenation are displayed with the hyphen at the margin limit rather than offering alternate hyphenation points).

Screen display is clear and uncluttered and closely resembles printed output. Unfortunately on-screen justification is not available. "WordPerfect's" special features are extensive and extremely easy to implement. The built-in speller is a nice feature. It could, however, be more tolerant (e.g. "center" is not an option for "centre", but "centering" is acceptable).

IMPLEMENTATIONAL SUPPORT DESCRIPTION

The documentation includes an installation pamphlet, a user's manual, classroom workbooks, a quick reference card, five disks, and a booklet illustrating the finished product for each of the basic ideas presented. The learning disk contains sample documents which are used in the lessons.

The classroom workbook is a supplement to the "WordPerfect" package. It takes the user through the word processing tasks in a step-by-step manner. It emphasizes the fundamentals such as formatting and editing as well as special features which involve more advanced applications.

IMPLEMENTATIONAL SUPPORT EVALUATION

The documentation is well-organized, comprehensive and sequential. It has meaningful illustrations and is attractively formatted. It is unfortunate that the table of contents does not have page numbers. While an index is provided, it is not as comprehensive as one might expect.

The classroom workbook is well-organized and assists the students in becoming familiar with the word processing capabilities of this package. Since the workbook is reusable, the students may go over any parts which are causing difficulties as often as required.

EASE OF USE EVALUATION

"WordPerfect" is a comprehensive word processing program which can be used with a minimum of supervision. It proves reliable in normal classroom use. Assuming at least 384K of memory, files can be redirected to another drive and the "WordPerfect" disk can be removed.

SUMMATION

In addition to being an easy to use word processor, "WordPerfect" offers many extended features not commonly found on other packages (e.g. speller, thesaurus, built-in math functions, elaborate merging features, etc.). The well-written manual, the classroom workbook, the reference card, and the template permit the operator to learn the system with ease.

STATUS

Although "WordPerfect" has been authorized as a **BASIC** learning resource for grades 10 to 12, the classroom workbook has a **RECOMMENDED** status.

PURCHASE INFORMATION

Alberta schools may purchase the computer product from the Learning Resources Distributing Centre for the following classroom package prices: $854.00 for 10 students, $1129.00 for 20 students and $1464.00 for 30 students. These prices are subject to a 15% educational discount and an additional 25% subsidy discount. The non-consumable classroom workbook is available for $23.00 each. This price is subject to a 15% discount. Network pricing may be available from the LRDC order desk.

"WordPerfect" packages are under warranty for 30 days.

WORDSTAR 2000 PLUS

DESCRIPTION

Title: Wordstar 2000 Plus
Author: None Cited
Publisher: MicroPro International Corporation
Source: c/o Norland Agencies, 251 Nipissing Rd #3, Milton, Ontario L9T 4Z5
Subjects: Business Education
Topics: Word processor
Version: 2.0 American
Display Language: English
Cost: LRDC Buyer's Guide
Tel. #: (416) 876-4774
Users: Grades 10 - 12

Components: 7 disks (training & utilities, program, installation, dictionary, basic tutors, advanced tutors, plus-advanced features), reference guide (305 p.), getting started and installation guide (64 p.), training guide (222 p.), plus-advanced features guide (248p.)

System Requirements: IBM PC/XT/AT, DOS 2.0 or later, 256K RAM, dual floppy drives or a floppy drive and hard disk system (recommended), monitor, printer

Other Formats Available (not evaluated): IBM compatibles, Apple II+/IIe with StarCard

OBJECTIVES

"Wordstar 2000 Plus" is a word processing package designed to provide more advanced students with automated indexing, table of contents generation, mailing lists, telecommunications, spelling correction, sorts, calculation abilities and other features.

EDITOR DESCRIPTION

"Wordstar 2000 Plus" offers a format file from which the user can select one of seven given formats (memo, manuscript, justify, etc.) or add additional created styles. Both preset and created files can be altered at any time. File length is limited only by available memory space. The editing line provides evidence of document creation including the file name (up to 63 characters) and other relevant status information.

Screen prompts tell the user what function is in effect (block, options, glossary, etc.) and screen help is available at any time. Cursor movement is accomplished with the standard IBM arrow keypad combined with CTRL plus mnemonic alpha keys for quick cursor movement (to end of document, to left side, etc.). Deletion can be accomplished by character, line, partial line, sentence, word or by defined portions. The program will scroll by line, page, screen, window, and to the beginning/end of a document.

Any amount of text can be identified (blocked) and moved. Up to three windows, split horizontally, are available to assist in viewing the source and the possible destinations (either from the same document or different documents).

The search and replace feature (up to 40 characters) offers several options: global search with or without replacement, with or without reviewing each time, and with or without showing the replacement. Searches can occur either forward or backward from the cursor position.

EDITOR EVALUATION

The process of creating a document is straightforward and easy to accomplish. Default values can be easily changed. Mnemonic commands assist in the editing process and the ability to set user-defined function keys facilitates operations. Cursor movement is efficient. UNDO commands on both the deletion and moving process are effective in preventing user errors. The process of searching (or "locating" as it is referred to in Wordstar) is efficient and searches can be cancelled at any time.

FILE MANAGEMENT DESCRIPTION

Disk initialization requires use of the system master. The command structure forces the user to enter a keystroke to SAVE or ABANDON the file before exiting the program. If ABANDON is chosen, a prompt requires user confirmation. Likewise a prompt question ensures files are not deleted accidently. Backup files are automatically created, unless the file is being saved for the first time.

"Wordstar 2000 Plus" converts to and from IBM DCA document formats and previous versions of Wordstar programs. It inserts Lotus 1-2-3 and Symphony files directly into a document with no need to print spreadsheet files to the disk first. The publisher indicates that TelMerge can send and receive ASCII data and supports the CompuServe "A" protocol. The program supports PCNetwork, 3Com Ethernet, Novell Netware and others.

FILE MANAGEMENT EVALUATION

The inability to exit the program without saving a file is a unique safety feature. The process of file merging is clearly explained in the lessons in the Training Guide. Menu selections to prompt deletion routines make the process easy to remember. Unfortunately the program lacks any form of password security.

PRINT FORMATTER DESCRIPTION

The pre-set formats are nice for a novice user; however, formats can be deleted or changed as desired at any point in the document creation process. Provided there is printer support, "Wordstar 2000 Plus" will support a variety of type fonts. Default tabulation settings, which are indicated on a ruler, can be adjusted at any time by the user. Decimal alignment is supported as is automatic centering between columns. The automatic word wrap cannot be disabled.

Print height is chosen as "lines per inch" which allows typeset point spacing or typewriter line spacing. Print height cannot be adjusted in mid-line, but may be adjusted at any point in the document. The ruler line expands or contracts to adjust to print font sizes. Justification can be activated/deactivated at any point in document creation. The program does not offer multi-column justification (as for newspaper columns).

Although the program offers automatic pagination, forced breaks can be inserted and measures can be taken to prevent a group of lines from breaking between pages. The program can be set to print the entire document or selected portions. The printer can be stopped and reactivated and will do so automatically to accommodate font device changes. Printing can be aborted at any time.

The program allows assigning of a different header/footer for odd/even pages, and header/footer definitions can be changed at any point in the document. Footnotes, if used, are numbered consecutively and are printed either at the end of the document or at the bottom of the page on which they are referenced. They are automatically renumbered if a user makes an addition/deletion.

"Wordstar 2000 Plus" offers automatic hyphenation based upon a set of rules designed for the English language combined with a dictionary of exceptions. Compound words are distinguished from hyphenated words by displaying the automatically hyphenated words with colored hyphens.

Screen display approximates the printed page with the following differences: spacing is indicated by a tag, color or intensity(for monochrome monitors) is used to display boldface, underline, superscript[+], and subscript[-].

This program offers several extra features including the ability to automatically create an index or table of contents, macro key ability, calculation ability within a document, a built-in spelling checker, label printing ability, ascending, descending or alphabetical sorts, etc.

PRINT FORMATTER EVALUATION

Provided there is adequate printer support, "Wordstar 2000 Plus" provides an excellent array of formatting options. The line space adjustments result in a litho quality appearance. Tab sets and changes are easily accomplished from menu commands and tabulated columns can be moved to any desired location.

The reference manual depicts the font styles and sizes, as print height (line spacing) is dependent upon the font chosen.

IMPLEMENTATIONAL SUPPORT DESCRIPTION

This program utilizes four guides, each offering a table of contents, a getting started section, and an index. Some of the guides also contain an auto-install, troubleshooting and tips section, installation error messages section, appendices, and a glossary. The user progresses through the guides in conjunction with sample document files.

IMPLEMENTATIONAL SUPPORT EVALUATION

The use of four separate guides is awkward, a much more effective instruction would take place if all guides were integrated. While the program's tasks are presented alphabetically, it is difficult to locate them unless the user is familiar with "Wordstar's" terminology (e.g. the "Help" commands is located under "G" for "Get Help").

EASE OF USE EVALUATION

While "Wordstar 2000 Plus" is easily implemented in classrooms with hard disks, the disk swapping required for implementation of some features may make the package cumbersome in a classroom limited to floppy drives.

SUMMATION

"Wordstar 2000 Plus" is a relatively easy to learn package which offers some well-developed features not common to word processing packages (e.g. hyphenation, spelling checker, key glossary, extended buffering, automatic back-up files, calculation ability, sorts, etc.). The documentation lacks integration of concepts.

STATUS

"Wordstar 2000 Plus" has been authorized as a BASIC learning resource for grades 10 to 12.

PURCHASE INFORMATION

Alberta schools may purchase this product from the Learning Resources Distributing Centre for an approximate package price of $235.00 less a 15% educational discount and an additional 25% subsidy discount.

The publisher provides a 90 day warranty in which defective disks may be returned free of charge. This warranty takes effect on the date the package is opened and the shrink wrap removed. Packages must be registered with MicroPro to validate the warranty. Registration entails returning a completed registration card (enclosed in every package) directly to MicroPro.

OTHER EVALUATION SOURCES

PRINT SOURCES

Many other agencies in Canada and the United States are evaluating microcomputer software and providing valuable information. A list of some of the software evaluation sources is provided for your information.

1. **Catalog of Approved Microcomputer Software**

   Contact:

   Marcelline Barron
   Cincinnati Public Schools
   230 E. 9th Street
   Cincinnati, Ohio 45202

   (513) 369-4983

   Price:

   New price for 1987 publication
   Contact Cincinnati Public Schools for information on pricing

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2. **Classroom Computer Learning**

   Contact:

   Classroom Computer Learning
   19 Davis Drive
   Belmont, California 94002

   (415) 593-1696

   Price:

   $3.00 (US) per copy
   $4.00 (US) backorder copy
   Subscription rate: $22.50 (US) per year for eight issues

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3. **Educational Software Preview Guide**
   California Tech Clearinghouse

   Contact:

   Professional Library Microcomputer Centre
   San Mateo County Office of Education
   333 Main Street
   Redwood City, California 94063

   (415) 363-5400

   Price:

   $10.00 (US) per copy

PRINT SOURCES

4. **1986 Education Software Preview Guide**

Contact:

International Council for Computers in Education
University of Oregon
1787 Agate Street
Eugene, Oregon 97403

(503) 686-4414

Price:

$8.00 (US)

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5. **Electronic Learning**

Contact:

Scholastic Magazine
123 Newkirk Road
Richmond Hill, Ontario
L4C 3G5

(416) 883-5300

Price:

Teacher's Edition $23.95 per year for 8 issues

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6. **Evaluation: Microware**

Contact:

Microware
Provincial Education Media Centre
7315 Elmbridge Way
Richmond, British Columbia
V6X 1B8

(604) 278-4961

Price:

Subscription $75.00 per year for 10 issues

PRINT SOURCES

7. **1985 Survey of Early Childhood Software**

Contact:

High/Scope Educational Research Foundation
600 N.River St.
Ypsilanti, Michigan 48197

Price:

$20.00 (US) for book or disk (Appleworks)

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8. **High Quality Courseware List**

Contact:

Barbara Moss
Minnesota Curriculum Service Centre
3554 White Bear Avenue
White Bear Lake, MInnesota 55110

(612) 770-3943

Prices:

#B0708A	$5.00 (US)
#B0708B	$12.00 (US)
#B0708C	$10.95 (US)
#B0708D	$14.95 (US)
#B0708E	$14.95 (US)
OR (A,B AND C) with binder	$29.95 (US)
(D and E) without binder	$26.96 (US)

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9. **@ Micro (1985/86)**
@ Micro (1986/87)

Contact:

James Robert Vickers
Florida Centre for Instructional Computing
University of South Florida
EDU 123H
Tampa, Florida 33620

Price:

@Micro (1985/86)	$20.00 (US)
@Micro (1986/87)	$25.00 (US)
or both editions for	$40.00 (US)

PRINT SOURCES

10. **MicroSOFT Quarterly Report**

Contact:

Darlene Miller
Office of Marketing
North West Regional Educational Laboratory (NWREL)
300 S.W. Sixth Avenue
Portland, Oregon 97204

Phone:

(503) 248-6800

Prices:

1.	(6 issues) executive summary only	$20.75 (US)
2.	(6 issues) executive summary with backup reports	$50.10 (US)

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11. **The Addison-Wesley Book of IBM Software, 1984**
Edited by Robert P. Wells, Sandra Rochowansky, and Michael F. Mellin
Los Angeles: The Book Company
442 pages, paperback, $19.95 (US)
Supplementary updates, $10 (US) yearly
ISBN: 0-201-16455-8

This book contains long, detailed, readable discussions of 293 programs and 65 games that run on the IBM PC (and on compatible machines or under MS-DOS). Business, word processing, spreadsheet, database management, graphics, education utilities and personal programs are included. The reviews average a thousand words in length, rate documentation, vendor support, error handling, ease of use, reliability, visual approval and the value received relative to cost.

The ratings take the form of grades from A to F with pluses and minuses. While the grading seems to be fairly consistent throughout, it is a bit lenient. Of the 3000 grades issued by the 58 reviewers, there are fewer than 10 Fs.

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12. **The Software Catalog**
Microcomputers
Winter 1985
New York, Elsevier, 1985
1642 pages, $75.00 (US)
ISBN: 0-444-00883-7
ISSN: 0736-2722
No. 1 (1985)

This book lists software for microcomputers only. The majority of the entries are from the United States with Canada and Great Britain a distant second and third. The **Catalog** appears twice a year (winter and summer).The main section of description is organized numerically by ISPN number (International Standard Program Number, where the first four digits of the number refer to software producers and the last three to the specific package). The descriptive paragraph includes a short, producer-written description, the release date, warranty, and vendors.

There are two keyword indexes for locating programs: subject and title. Because of the thorough cross-indexing users can locate packages compatible with their systems quickly and easily.

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13. **The Software Encyclopedia**
1985/86 2v. Bowker, 1985
xviii, 2041 pages. Indexes
Hardcover $95.00 (US)
ISBN: 0-83520-2155-8

This is a two-volume software directory with 22,000 microcomputer software packages from 3,000 publishers. The guides to Applications is a list of 830 subject headings. The Title Index is a listing of all software by title giving the following information: number of disks, version, series, culture, grade level, release date, compatible hardware, microprocessor types, operating system required, language, memory required, price, ISBN order number, publisher and a three line annotation.

The Bowker set is a comprehensive guide to software and a reliable source for acquisitions information at a relatively low price.

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14. **Whole Earth Software Catalog for 1986**
2d 3d. (Stewart Brand, editor in chief)
Doubleday, 1985
224 pages. Indexes. Paper $17.50 (US)
ISBN: 0-385-23301-9

The 473 reviews of microcomputer software packages are organized under 11 headings such as Writing, Organizing, Drawing and Learning. Each section begins with an introduction and a profile of the section editor who is responsible for the packages reviewed. These reviews are opinionated and do not adhere to objective criteria employed by most other software reviewers. Computer jargon is kept to a minimum. Each review contains the software publisher's address and all specifications. The catalog is rounded out by a supplement and is updated quarterly. The catalog contents can be obtained on-line through Compu-Serve.

ELECTRONIC DATABASES

On-line services are provided by various agencies to access bibliographic or full-text databases. The systems provide descriptive and evaluative information regarding microcomputer software. Several on-line database systems are included for your information.

1. **Business Software Database**

Producer:	Centrale des bibliotheques
Started:	1984
Number of Records:	1700
Update Frequency:	Daily
Annual File Size Increase:	1000
Cost:	
Rate per hour	$40.00 (Cdn)
On-line per citation cost	None
Off-line per citation cost	$0.25 (Cdn)
User fee per hour	None
Telecommunications fee per hour	None (using Datapac)
Contact:	Diane Fournier Centrale des bibliotheques 1685 Fleury Street East Montreal, Quebec H2C 1T1 (514) 382-0895

Description:

This is an on-line database of Quebec software and courseware containing technical and functional descriptions of the computer products as well as marketing conditions and addresses of the producers and distributors. The descriptions of the courseware also include information on the pedagogical content, subject areas and target audience. All the information is available in French and half have English versions. Catalogs are printed twice yearly.

2. Council of Ministers of Education

Producer:	Council of Ministers of Education, Canada 252 Bloor Street West Toronto, Ontario M5S 1V5
Started:	1986
Number of Records:	1000
Update Frequency:	Monthly
Annual File Size Increase:	1000
Cost:	
Rate per hour	None
On-line per citation cost	None
Off-line per citation cost	None
User fee per hour	None
Telecommunications fee per hour	$25.00 (Cdn)
Contact:	Ms. Nuzhat Jafri Database Manager (At the above address) (416) 964-2551

Description:

The Database for Educational Software, developed by the Council of Ministers of Education, Canada (CMEC), provides educators with descriptive and evaluative information on microcomputer software currently available in Canada. Provincial and territorial Ministries and Departments of Education are contributing descriptions and evaluations of educational courseware for inclusion in the database. Each record in the database contains details such as the title of the software, its intended use, appropriate age levels, availability and price, an abstract, subject descriptors and an extensive evaluation of the software. The evaluations are based on a standard set of evaluation criteria established by representatives from all the provincial and territorial ministries/departments of education.

The CMEC database is available on-line in either English or French through the facilities of La Centrale des bibliotheques in Montreal. Any user equipped with a terminal or a microcomputer, a modem, communications software and telephone lines can access the database on-line.

ELECTRONIC DATABASES

3. York On-Line Service

Producer:	Faculty of Education York University North York, Ontario M3J 1P3
Started:	1985
Number of Records:	10,000
Update Frequency:	Regularly
Annual File Size Increase:	2000
Cost:	
Rate per hour	None
On-line per citation cost	None
Off-line per citation cost	None
User fee per hour	None
Telecommunications fee per hour	None (using Datapac)
Contact:	Ronald D. Owston, Director York IBM Cooperative Project Faculty of Education North York, Ontario M3J 1P3 (413) 736-5019

Description:

A comprehensive catalog of commercially available educational software containing product descriptions and evaluations is provided. All subject areas from kindergarten through post-secondary as well as teacher utility packages are included.

Also, the service has a database of more than 700 software producers and an electronic bulletin board to allow educators to exchange information about software. Both databases allow full text searches.

4. Business Software Database

Producer:	Information Sources Inc. 1173 Colusa Avenue Box 7848 Berkeley, California 94707-0848
Started:	1981
Number of Records:	8200
Update Frequency:	Quarterly
Annual File Size Increase:	2000
Cost:	
Rate per hour	$90.00 (US)
On-line per citation cost	$0.52 (US)
Off-line per citation cost	$0.45 (US)
User fee per hour	$18.00 (US)
Telecommunications fee per hour	$15.00 (US)
Contact:	(415) 525-6220 (At the above address)

Description:

This is a directory of software resources which have business applications that are available for mini and microcomputers. Subject areas covered include accounting, banking, communications, health care, insurance, law, manufacturing, real estate, software systems, and word processing. Each record includes the product name, address of the producer, subject terms, a 150 word product description, system requirements and prices. Computer packages which are used on mainframe and are interactive with minicomputers are included.

ELECTRONIC DATABASES

5. Resources in Computer Education

Producer:	Northwest Regional Education Laboratory 300 S.W. Sixth Avenue Portland, Oregon 97204 (503) 248-6800 Address change April 1, 1987 1 Main Place
Started:	1979
Number of Records:	3600
Update Frequency:	Irregularly
Annual File Size Increase:	Not Available

Cost:

This database is accessed through BRS (Bibliographic Retrieval System).
Rates effective January 1, 1987:

Rate per hour	$20.00 (US) (maximum)
On-line per citation cost	$0.13 (US) (maximum)
Off-line per citation cost	$0.13 (US) (maximum)
User fee per hour	$Included in rate per hour
Telecommunications fee per hour	$9.00 (US)

Contact:

Bibliographic Retrieval System
Information Technology
1200 Route 7
Latham, New York
12110
(518) 783-1161

Description:

This is a directory of microcomputer educational software. It is intended for teachers, administrators, computer coordinators and librarians. The directory is searchable by ERIC descriptors which identify the grade level and subject areas. Producer contact information, pricing and abstracts are provided.